WORKSHOP REPORT on DISTRIBUTED GENERATION CEQA and PERMIT STREAMLINING

CALIFORNIA ENERGY COMMISSION

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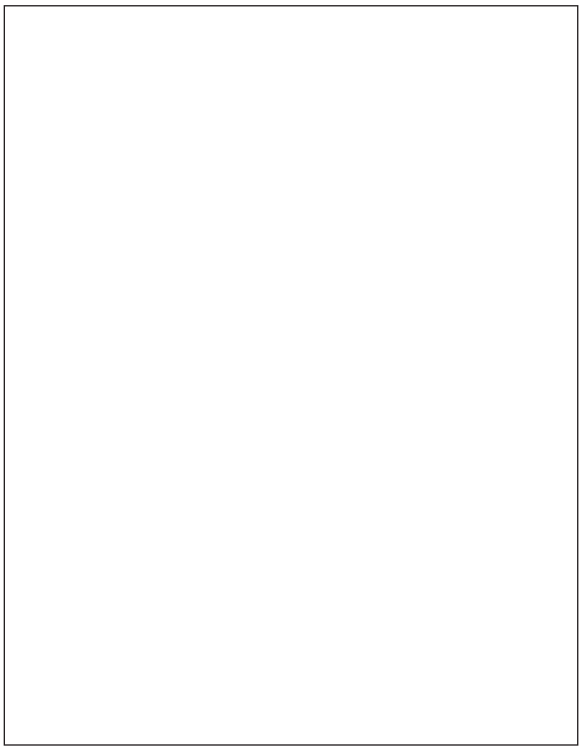

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Disclaimer: The views and conclusions in this document are those of the staff of the California Energy Commission and should not be interpreted as necessarily representing the policies of either the California Energy Commission or the State of California.

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I. INTRODUCTION

The staff of the California Energy Commission hereby submits this report to the Energy Commission s Siting Committee (Committee) pursuant to the Energy Commission s Order Instituting Investigation 99-DIST-GEN(2) issued on November 3, 1999. The purpose of this report is to summarize workshop discussions held to produce recommendations on whether certain types of distributed generation (DG) facilities can qualify for exemption from the California Environmental Quality Act (CEQA) review, or alternatively, for some form of streamlined CEQA review. The report also addresses recommendations for how the permit processes could be streamlined for facility owners seeking to install DG systems.

This report supports a collaborative effort with the California Public Utilities Commission (CPUC) in investigating DG issues. Both the CPUC and the Energy Commission have stated that this exploration into possible CEQA streamlining opportunities was ***not*** intended to interfere with local government or air district siting authority over any DG facility. Furthermore, it is hoped that the recommendations in this report will stimulate further discussion about which activities the Energy Commission and others should pursue.

Written comments on this report, including suggested outreach strategies to local government, are due on August 11, 2000. The Committee has scheduled a hearing in Sacramento on September 7, 2000, to address the workshop report and receive public comment. Subsequent to the September 7 hearing, it is anticipated that the Energy Committee will forward a final report to the full Energy Commission for adoption at a business meeting in early November. Final recommendations will be delivered to the CPUC once the Commission adopts the final report.

Background

The desire to address this issue stems from several discussions with representatives of the California Alliance for Distributed Resources (CADER) held in May 1998. One discussion noted a number of siting and environmental barriers to DG development, including:

- limited governmental policy support;
- lack of general information, specific technical information, and universally accepted standards;
- unconsolidated, ambiguous information on siting and permitting requirements;
- omission of DG from long-range energy infrastructure plans; and
- inconsistent regulatory standards and absence of pre-certification procedures.

The October 1999 CPUC adoption of Decision D. 99-10-065 and a companion Order Instituting Rulemaking (OIR) 99-10-025 in October 1999 provided a procedural roadmap for addressing issues related to DG. The decision was the result of collaborative efforts among the CPUC, the Energy Commission, and the Electricity Oversight Board. Section K of the OIR asked the Energy Commission to hold a workshop to discuss whether local government agencies can use a streamlined California Environmental Quality Act (CEQA) process for the siting of certain types of DG facilities. The OIR noted that if the equipment has no environmental impacts at all, the Legislature may want to consider exempting certain DG types from CEQA (i.e., a statutory

exemption). In other instances, local governments may see numerous proposals to install the same or similar types of DG equipment that do have environmental impacts. In such cases, the OIR suggested that the siting of DG of the same type may qualify for some form of streamlined CEQA review at the local government level. [1]

In response to the CPUC request, the Energy Commission opened an investigation 99-DIST-GEN (2) to consider whether local government agencies can use a streamlined process to address CEQA issues in reviewing DG facilities. In addition to meeting the needs of the CPUC s OIR, the Energy Commission s investigation also considers the feasibility of, and need for, local land-use permit, building permit, and air pollution permit streamlining.

Siting Committee Workshop Preparation Process

The Energy Commission staff worked with Air Resources Board (ARB) staff and Shirley Rivera of Resource Catalysts to prepare the April 4, 2000, Notice of Siting Committee Workshop Evaluating Distributed Generation CEQA/Permit Streamlining and its attached scoping questions (See Appendix A).

DG technologies, due to their small sizes, are not within the Energy Commission s permitting jurisdiction. [2] They are permitted subject to CEQA review (where applicable) and permit issuance (where applicable) by local governmental agencies. The Energy Commission staff, therefore, sought to include local agencies in the workshop process. In addition to inviting approximately 140 parties on the CPUC R.99-10-025 service list, staff distributed the workshop notice, along with a cover memo explaining the workshop notice and its potential relevance to their work (see Appendix B), to about 1,200 State and local governmental entities. These included the following:

1. 555 state building department contacts,
2. 545 city, county, and regional government planning agency contacts,
3. 62 air district planning managers and permit engineers, and
4. 40 local and State agencies representatives from the Local Government Commission, San Diego Regional Energy Office, Association of Environmental Professionals, Office of Planning and Research, Office of Permit Assistance, California Environmental Protection Agency, the Resources Agency, ARB, California State Association of Counties, League of California Cities, State Fire Marshall s Office, and the Department of Toxic Substances Control.

To maximize the ability of interested parties to participate in the April 20 workshop, the meeting was broadcasted over the Internet, and parties with concerns were encouraged to contact Energy

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[1] CPUC D.99-10-065 (p. 18) noted that many small distributed generators are not covered by existing air quality regulations. However, the deployment of some DG technologies, such as diesel-fired generators and natural gas-fired gas turbines, may have adverse environmental impacts, especially with respect to air quality, depending on the location, type, size, and number of DG units deployed. Siting a large number of such fossil-fueled generators in the same general vicinity could have a significant adverse impact on air quality which was not contemplated by an air district in the development of its air quality attainment plan.

[2] The Energy Commission has permitting authority over thermal power plants at 50 MW or greater.

Commission staff during the day of the workshop. Additionally, the comment period was extended through May 5, 2000, to receive additional written comments related to the scoping questions and workshop discussions.[3] For those unable to attend the workshop either in person or via Internet broadcast, workshop transcripts have since been posted to the Energy Commission s Web Site at <www.energy.ca.gov/distgen/documents/index.html >.

Section II of this report summarizes the April 20 workshop proceedings. In addition, Appendix C includes a more detailed summary of oral presentations, docketed written comments, other written and oral comments received by the Energy Commission staff, and public comments.

Staff reviewed all comments from the workshop proceedings and other reference materials[4] to identify the key issues and proposed solutions raised by the DG industry, local permitting authorities and others. Section III of this report presents the key issues and potential solutions for CEQA review, land-use permitting, building permitting, and air quality permitting as separate topics.

Section III also summarizes current activities being conducted by federal, State, and local agencies or through industry collaboratives, which may facilitate DG permitting, either directly or indirectly.

Section IV provides answers to the scoping questions posed in this report and recommends specific actions the Energy Commission and others in the area of DG CEQA and permit streamlining.

Section V describes the immediate next steps for participants to take in this DG proceeding and provides a schedule for these steps.

[3] No additional comments were received during the two-week extension period.

[4] Other reference materials included the CADER report and CEQA Guidelines.

II. SUMMARY OF APRIL 20 WORKSHOP

This section highlights key information gained from the Siting Committee s DG workshop. Information is divided into three categories: (1) CEQA Review/Land-Use Permit Process, (2) Building Permit Process, and (3) Air Permit Process. For each category, this section contains a table of key issues, potential solutions and a rationale for why the potential solution would resolve the particular issue. Below is a summary of each table s contents.

CEQA Review/Land-Use Permitting Process

Local government land-use policies and zoning ordinances may not include electric generating facilities in their land-use definitions or indicate in which zones DG facilities are allowed or prohibited. A project developer may be the first individual to approach a local jurisdiction about installing a DG project. The public may object to the proposed project if they perceive it will be polluting, noisy or unsightly. The local government planning department staff, who must evaluate project information to support the decision to allow the project at a particular site, may be unfamiliar with DG technologies, not know how to evaluate its potential environmental impacts, or know what mitigation measures[5] would be appropriate. To get project approval, the developer may have to educate the local planning department staff by responding to multiple information requests.

All of the potential solutions included in Table 1 include providing information to local government planning staff about DG. The land-use permitting process would be improved by helping this staff focus its environmental analyses upon the relevant issues and by helping developers to plan projects which are more environmentally compatible.

Building Permitting Process

The issues in this subject area are very similar to those raised for the CEQA review and land-use permitting topic. Building codes may differ from jurisdiction to jurisdiction. Table 2 includes potential solutions, including providing the local government building department staff with information on DG technologies as well.

Air Permitting Process

DG projects fueled by fossil fuels or biomass emit air pollutants and may create environmental and public health concerns. Air district requirements for emission controls may differ across air districts. Air districts are also concerned about potential cumulative impacts of multiple DG projects, particularly if the technologies deployed use diesel fuel. Equipment manufacturers would prefer uniform emission standards. Table 3 includes suggestions for uniform emission standards and pre-certification programs for DG equipment that meet the standards.

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[5] Mitigation measures are project changes to reduce a project s significant environmental impacts

Table 1:
CEQA Review/Land-Use Permitting Process Issues and Potential Solutions

Issues / Problems	Potential Solutions	Rationale
CEQA Applicability (It is necessary to clarify the definition of project to determine when CEQA review applies. (Relatively environmentally benign DG technologies and projects may undergo unnecessarily lengthy CEQA review. (Insufficient information is provided by the developer for agencies to determine CEQA applicability.	(Provide guidance/legal interpretation of types of projects that would not be exempt from CEQA and that would require, at the very least, a negative declaration. (Create/legislate a categorical exemption from CEQA for certain DG technologies. (Develop a template for agencies to conduct their environmental impacts evaluation of a DG project	(Consistent agency interpretation of CEQA applicability provides certainty for DG project developers to minimize project delays. (Encourages lower and non-emitting DG technologies where CEQA review may be relatively minimal. (Developers can provide sufficient information to agencies based on the agencies template for project evaluation.
DG Technology Education (Local planners and regulatory agencies do not have sufficient information to readily evaluate a project under CEQA and issue the necessary approvals. (Local communities may not want a DG project near them. (Local communities may raise the issue of environmental justice.	(Develop a DG technologies and environmental profiles database for agencies to conduct their review and to identify possible mitigation measures and other conditions of approval. (Initiate discussion of the community s issues early on in project development. (Initiate and conduct coherent communication among project developers, the public and agencies.	(Technology specific information provides the starting point for agency and public evaluation of environmental impacts and mitigation measures, where applicable. (Avoids need for damage control during the public review process.
Specific Agency Standards and Policies (Current local land use policies and zoning may not readily allow DG. (The review process and applicable standards differ from region to region. (There are multiple agencies involved in DG project approval; agencies requirements may compete or conflict. (It is unclear whether, and how, cumulative impacts may be addressed.	(Inform local elected officials about DG and encourage DG's recognition in general plans, etc. (Create standards for specific technology groups. (Provide/Use a consolidated set of siting requirements and involved agencies.	(Land use planning that accommodates DG project development minimizes the need for amending plans, the need for undergoing additional CEQA review, and the lengthy approval procedures. (Technology specific standards will minimize developers guesswork for approvable projects. (Guidance for approval process will facilitate the introduction of DG technologies so that vendors can design equipment that meet the standards.

Table 2:
Building Permitting Process Issues and Potential Solutions

Issues / Problems	Potential Solutions	Rationale
DG Technology Education (Local building department staff may be unfamiliar with a DG technology. DG developer must spend time educating front desk staff. (Building department field inspectors are not familiar with inspection needs of certain technologies.	(Develop a standardized building permit submittal application package (e.g., PV systems). Use California-registered professional engineer to review plans. (Provide targeted training for field inspectors. Present new technology using agency s terms and interests: how system meets codes, fire ratings, etc.	(Standardized application packages for DG technologies provides certainty regarding the necessary technology and project parameters. (Training for inspectors will minimize delays in project approvals.
Siting Requirements and Agency Procedures (There is not a comprehensive resource(s) for identifying permits and approvals that must be secured for DG project development. (Existing California Environmental Protection Agency Web Site (CalGOLD) offers permit assistance to many types of businesses but does not have a business type for DG. So project developers cannot use this reference.	(Publish a Guidebook for building permit departments (regulatory staff) on approving permits to readily deploy DG technologies. (Develop specific guidance document/tool/resource for developers to identify necessary agency approvals, applicable regulations, and processing fees. (Compile/Develop a best practices list as it relates to licensing various DG projects: - Has any similar project been through the same processes? - What timeframes did they experience? (Work with CalEPA s CalGOLD Web Site providers to disseminate information to DG developers on permitting requirements.	(Help agencies develop/conduct their own DG approval processes more efficiently. (Enable DG project developers to spend less time and expense obtaining approvals. (Set the proper expectations about the time and effort that will be required to obtain approvals. (The existing CalGOLD Web Site can be modified to include DG as a business type.
DG Specific Agency Standards and Policies (Local codes may not address DG technologies. (Applicable standards, such as fire codes, differ from region to region.	(Extend building codes to cover energy use of DG, encouraging combined heat and power applications. (Modify building codes for optimizing sizing and installation standards. (Create standards for specific technology groups. (Have equipment Underwriters Lab certified. Design for plug and play.	(Technology specific standards will minimize developers guesswork for approvable projects. (Specific standards and policies for DG technologies will allow vendors to design equipment that meet the standards.

Table 3:
Air Permitting Process and Potential Solutions

Issues / Problems	Potential Solutions	Rationale
DG Specific Agency Standards and Policies (Air quality control technology requirements do not account for energy benefits, e.g., fuel efficiency. (Emission standards and control requirements differ from region to region. (Manufacturers must make different products to sell in different parts of California or have limited markets.	(Use output-based emission standards, e.g., lb/MW-hr; develop uniform, well-defined BACT standards. (Create uniform environmental performance standards for fossil fuel-fired technologies. (Develop pre-certification program for DG units for permit streamlining or exemptions. (Develop an accelerated permitting program for low-emitting DG technologies and applications.	(Combined heat and power recognized for efficiencies. (Uniform, output based emission standards provides incentive for efficient technologies and pollution prevention goals. (Applicant obtains accelerated or over-the-counter permit without an air district CEQA review. (Provides certainty of air district emission standards and process. (DG products at appliance level are candidates for precertification based on emission test results (e.g., similar to natural gas space and water heaters). (Exempt DG can avoid air permit paper work and delays.
Regional Emissions Impact (Fossil fuel-fired units emit air pollutants that have environmental and public health impacts (DG stacks have near-ground impacts and are likely to be near populated areas, e.g., near load centers, versus remote central power plant impacts (Cumulative impacts from multiple DG units may delay district attainment.	(Fossil fuel-fired DG units that are not exempt from permits must be evaluated for BACT. (Fund advanced DG technologies with progressively low emissions, e.g., natural gas fired spark ignition engines, DOE program on advanced gas recip engines. (Air pollution prevention program targeted toward DG, explicitly addressing environmental performance of DG technologies. (Address aggregate impacts in attainment planning and account for energy benefits.	(Advanced DG technologies could compete with larger natural gas-fired combined cycle plants. (Attainment planning, which incorporates potential growth of DG industry could minimize stifling of DG unit deployment.
Diesel Engine Deployment and Emissions (Exhaust from engines contains air toxic emissions. (Standby engines are likely peak shaving units running on peak days, e.g., hottest, smoggiest days of the year. (Some emergency engines have minimal to no controls.	(Develop permit requirements for new and existing non-emergency diesel engines; this includes particulate controls to minimize air toxic impacts. (Develop criteria for engines serving peak needs to avoid power brown outs.	(Creates market for new generators that use natural gas as well as add-on and retrofit controls. (Peak shaving minimizes energy costs and the upgrade of distribution lines.

III. ANALYSIS OF ISSUES AND POTENTIAL SOLUTIONS

The staff reviewed the workshop materials and written comments to identify the key issues and potential solutions for CEQA review and local jurisdiction permitting. The key issues and potential solutions are organized into three subject categories, consistent with the major permitting processes through which DG facility developers may seek approval: (1) CEQA review and land-use permitting process, (2) the building permitting process, and (3) the air permitting process.

As was stated in the CPUC decision,[6] the intent of permit streamlining is not to change who currently has authority over the siting and operation of DG facilities (i.e., local jurisdictions — cities, counties, and air districts). Furthermore, streamlining efforts will not attempt to shorten the time limits already imposed on local jurisdictions permitting processes by the CEQA Guidelines and the California Permit Streamlining Act. For purposes of this analysis, streamlining means to help local agencies conduct their permitting processes more efficiently.

This section addresses the following key questions:

- Can certain types of DG qualify for exemption from CEQA review?
- Can certain types of DG qualify for some form of streamlined CEQA review?
- How can the building permit and the air permit processes be facilitated for DG?
- Can certain types of DG qualify for exemption from either building or air permits?

Before addressing these questions, it is important to understand the purpose and scope of a CEQA review. Based on an interpretation of CEQA by the State s Resources Agency, it compiled the following short description about its purpose and scope:

> CEQA is a state statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible. State and local public agencies must comply with CEQA when undertaking an activity defined by CEQA as a "project." A project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. Every development project which requires a discretionary governmental approval will require at least some environmental review pursuant to CEQA, unless an exemption applies.

A. Issues regarding the CEQA Review and Land-Use Permitting Process

This section first describes CEQA review and land-use permitting as two separate processes and then shows how they combine into one procedure at the local level. Using this understanding of the processes, this section then analyzes when DG project developers would be required to participate in them and when DG projects might be exempt. Lastly, this section discusses

[6] Decision 99-10-065, p. 56

whether certain types of DG facilities might qualify for some form of streamlined CEQA review/land-use permitting process.

CEQA Review Process Description

CEQA review looks at the potential impacts of a DG project on the environment. The most basic steps of the environmental review process are the following:

(1) Determine if the activity is a "project" subject to CEQA.
(2) Determine if the "project" is exempt from CEQA.
(3) Perform an initial study to identify the environmental impacts of the project and determine whether the identified impacts are "significant."

Based on its findings of "significance," the agency prepares one of the following environmental review documents:

(1) Negative Declaration if it finds no "significant" impacts,
(2) Mitigated Negative Declaration if it finds "significant" impacts but the developer revises the project to avoid or mitigate those impacts, or
(3) Environmental Impact Report (EIR) if it finds "significant" impacts.

The draft environmental documents (e.g., an initial study and a negative declaration or an EIR) are then reviewed at public hearings. Following the public review process, the agency responds to public comments in writing and prepares a final environmental document. Before making a decision on a project the agency must certify that the environment document is adequate and complete. Based on the finding in the approved environmental document, the public agency then decides whether to approve the project.

Negative Declarations and Mitigated Negative Declarations

If a city or county conducts an initial study on a DG project and determines that it will have no significant environmental impact, then it can prepare a negative declaration. If the initial study reveals that a project could potentially create a significant environment impact, but the project developer agrees to revise the project so that the significant impacts can be avoided or reduced to insignificance, then the local jurisdiction can prepare a mitigated negative declaration.

Project changes and mitigation measures must be agreed to or made by the project developer ***before*** the draft negative declaration is circulated for public review and comment. Some jurisdictions require the developer to sign the draft mitigated negative declaration, indicating agreement with the mitigation measures or project revisions, before circulating the document. In other jurisdictions, the development and the agency may negotiate over the revisions or mitigation measures until they are mutually acceptable and enter into a more formal agreement. Will and shall language, rather than may or if feasible, is used to document the agreement to adopt specific mitigation measures.

A key question for the local jurisdiction is: What level of mitigation or project revision is sufficient to avoid or eliminate a potential significant effect? There is no ironclad answer which would apply in every instance; the local jurisdiction must use its own independent and objective judgment. Mitigation measures may include the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action,
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation,
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment,
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, and
- Compensating for the impact by replacing or providing substitute resources or environments.

Possible project revisions include changes in design, location, operations, or scope. Mitigation measures must be adopted as conditions of approval. The local jurisdiction must also adopt a mitigation monitoring or reporting program to ensure compliance with the required mitigation measures or project revisions during project implementation.

Land-Use-Development Approval Process Description

Cities and counties adopt community standards in the form of zoning ordinances to promote the safety, welfare, and orderly development of their jurisdictions. The construction of any building, and the occupancy or use of that building, must be designed and constructed to meet these community standards. These standards vary depending on what is proposed and where the building is located. Basic questions involved in the project review process include the following:

(1) Is the use consistent with the General Plan?[7]
(2) Is the use allowed in the zoning district?[8]

Applicants seeking approval of proposed projects may be required to apply for various discretionary entitlements[9] if the proposed project does not comply with the local jurisdiction s approved General Plan and zoning ordinances.

Amendments to the General Plan require a public hearing and the local jurisdiction s approval. If a landowner proposes a use that is not allowed in that zone, a change of zone must occur. Rezoning requires a public hearing and local jurisdiction approval.

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[7] A General Plan is the local jurisdiction s blueprint for future development. It describes the development goals and policies and forms the basis for land use decisions. In addition to goals and policies, the General Plan also contains a Land Use Diagram (map) which designates land areas for specific uses. Examples of typical land-use categories include: residential (various densities); commercial and office, commercial and warehousing, and industrial.

[8] Zoning districts are established to promote compatible patterns of land use within a zoning jurisdiction and to establish appropriate site development regulations and performance standards. Zoning Maps assign each piece of property to a "zone" which specifies how the land may be used. The Comprehensive Zoning Ordinance establishes uses allowed in each zone and standards that must be met within each zone.

[9] Discretionary entitlements include rezoning approvals or conditional use permits.

A brief survey of city and county zoning ordinances[10] revealed that some define DG projects: as public utility facilities (regardless of facility ownership by an electric utility); as electric generating plants ; and, by type (e.g., photovoltaic generating facilities, wind energy conversion facilities, co-generation electric generating facilities). Some jurisdictions ordinances, however, do not define electric generation as a land use.

Zoning ordinances specify which uses are permitted, conditionally permitted and prohibited for each land-use category established within the jurisdiction. Some land or building uses are only allowed by Conditional Use Permit. The Conditional Use Permit application process includes a review of the project s proposed location, design, configuration of improvements, and potential impact on the surrounding area that are based on established standards. The local jurisdiction notifies all nearby property owners and tenants, and its designated planning body conducts a hearing. The review determines whether the proposed use should be permitted by weighing the public need for, and benefit to be derived from, the project against any adverse impact it may cause.

The process of obtaining land-use approvals always involves some level of environmental review and follows these steps:

[10] The California Land Use Planning Network website,< www.ceres.ca.gov/planning> provides access to many California city and county zoning ordinances, under Data Type.

Table 4:
Land-Use Permitting and CEQA Review Process

Step	Land-Use Permitting/CEQA Review Actions
1	Informal Consultation/Preliminary Review (Optional elsewhere)
2	Application submitted
3	Agency conducts Initial Study
4	Project information distributed to appropriate agencies and neighborhood groups for their review and comment
5	Project reviewed by planning staff
6	Determine which environmental document to prepare (Notice of Exemption, Negative or Mitigated Negative Declaration, Environmental Impact Report)
7	Planner receives comments and schedules any necessary follow-up meetings
8	Environmental review completed
9	Planner schedules project for appropriate public hearing
10	Public Notices mailed to surrounding property owners
11	Planner prepares staff report
12	Project is heard at the public hearing held by the Planning Commission (or Zoning Administrator)
13	Appeal Period (10 days)
14	If required, project is heard at a public hearing held by the City Council (or Planning Commission) or County Board of Supervisors

Current Permitting Time Limits

Local governments are obligated, under the California Permit Streamlining Act[11] to complete their environmental review and to provide a land-use decision within strict time limits.

Section 15102 of the California Code of Regulations (CCR) states, [t]he Lead Agency must determine within 30 days after accepting an application as complete whether it intends to prepare an EIR or a negative declaration.

Section 65950 of the California Government Code states

> [a]ny public agency which is the lead agency for a development project for which an environmental impact report is prepared shall approve or disapprove the project within ***one year*** from the date on which an application requesting approval of the project has been received and accepted as complete by that agency. If a negative declaration is adopted or if the project is exempt , the development

[11] California Government Code (CGC) Sections 65920 et seq. and under Article 8, Time Limits of the CEQA Guidelines (California Code of Regulations (CCR) Title 14, Sections 15100 to 15112.

> project shall be approved or disapproved within ***six months*** from the date on which an application requesting approval of the project has been received and accepted as being complete by that agency, unless the project proponent requests an extension of the time limit. [Emphasis added]

Once the public agency accepts a project application as complete, the time limits imposed for preparing the environmental documents and for reaching a decision are the same: six months for negative declaration-type projects and one year for EIR-type projects.

CEQA Applicability to Distributed Generation Projects

During the workshop, Commissioner Laurie also posed the following question: at what point does the operation of a piece of DG equipment become a **land use issue**, as opposed to **an operational element of an underlying use** of that land? The Energy Commission legal staff was asked to research this question and produced the following response:

A land use issue arises if a particular piece of property is not zoned to allow energy production equipment to be sited on it. Land use is a different issue from CEQA review. When a DG proposal is the project, a CEQA review is required. A number of public agency discretionary actions can cause a DG installation to become a project under CEQA. These actions include the following:

(1) enacting or amending a zoning ordinance to accommodate a DG project at a site,
(2) sponsoring a DG installation with public funds, and
(3) issuing a conditional use permit.

Under the second action, for example, the local jurisdiction would have to do a CEQA review of a DG project regardless of the zoning, and it would have to determine proper zoning regardless of the environmental impacts. The results of those two determinations may, and can, overlap when the decision-maker has to decide what to do about zoning problems or whether to approve a conditional-use permit allowing the project. The following section further defines local government s land-use permitting process.

Potential CEQA Exemptions

Many air district representatives and public participants commented at the April workshop that DG should ***not*** be exempt from the CEQA review process. Yet the staff s review of existing CEQA Guidelines revealed potential opportunities for CEQA exemption of DG. CEQA Guidelines include two lists of classes of projects which are exempt from CEQA if they meet specified criteria: statutory exemptions and categorical exemptions. Statutory exemptions are granted by the Legislature, while categorical exemptions are those which have been determined not to have a significant effect on the environment. Specifically, the Secretary of Resources has declared specific classes of projects to be categorically exempt from the requirement for the preparation of environmental documents. The Governor s Office of Planning and Research entertains requests to amend CEQA Guidelines, which add, amend or delete classes of categorical exemptions.

Statutory Exemptions

There are two statutory exemptions relevant to DG: ministerial projects and air quality permits.

Ministerial Projects

Section 15268 of the CCR, Title 14, states that, [m]inisterial projects are exempt from CEQA. In the absence of any discretionary provision contained in the local ordinance or other law establishing the requirements for the permit, license or other entitlement for use, the ***issuance of building permits*** is presumed to be ministerial.

Local governments which have determined that a proposed project conforms with local land-use designations do not need to perform CEQA review before issuing building permits.

Air Quality Permits

Section 15281 of the CCR states that, CEQA does not apply to the issuance, modification, amendment, or renewal of any permit by an air pollution control district or air quality management district unless the issuance, modification, amendment, or renewal authorizes a physical or operational change to a source or facility.

The exception about project changes may be relevant to air districts concerns about emergency generators. Many air districts have been receiving requests to amend the air permits of existing diesel emergency or stand-by generations to change their operation. The statutory exemption implies that a CEQA review is required when facility owners seek to raise limits on the number of operating hours for these machines so that they can take advantage of utility or California Independent System Operator incentive programs for peak load reduction.

Categorical Exemptions

The CEQA Guidelines include four classes of facilities which are CEQA exempt and which could be applied to DG facilities: cogeneration projects at existing facilities, existing facilities, new construction or conversion of small structures, and replacement or reconstruction. Each of these categorical exemptions is discussed below.

Cogeneration Projects at Existing Facilities

Section 15329 of the CCR exempts cogeneration projects that are 50 MW or less and that are proposed to be located at existing facilities from the requirement to prepare environmental documents. Specifically, it establishes Class 29: Cogeneration Projects at Existing Facilities, and states:

> At existing *industrial* facilities, the installation of cogeneration facilities will be exempt where it will:

1(Result in no net increases in air emissions from the industrial facility or will project emissions lower than the amount that would require review under the new source review rules applicable in the county; and
2(Comply with all applicable state, federal, and local air quality laws.

At existing *commercial and institutional* facilities, the installation of cogeneration facilities will be exempt where it will:

3(Meet all of the criteria set for cogeneration projects at existing *industrial* facilities (See above);
4(Result in no noticeable increase in noise to nearby residential structures;
(3) Be contiguous to other commercial or institutional structures.

This categorical exemption was added to the CEQA Guidelines in the mid 1980 s to promote cogeneration. The rationale for adding the exemption was that a cogeneration project at an existing facility, which meets air quality standards, would generally not have significant environmental impacts and thus would qualify for a CEQA exemption (barring any unusual circumstances — See Exceptions, below).

Some industrial facilities may already have an electrical generator on site. At these sites, a cogeneration system would be added to capture and use waste heat from the generator to produce more electricity. More commonly, however, existing industrial, commercial, and industrial facilities lack on-site electric generators. At these facilities, the cogeneration system would include a new electrical generator, plus equipment to capture waste heat, which would be used to produce steam or hot water for the facility. Because of the CEQA exemption s no net increases in emissions limitation, only industrial, commercial, and institutional facilities *with existing on-site generation* may be able to qualify for this exemption.

This exemption is still being used today. For example, the University of California San Diego filed a notice of exemption in March 2000 to site a 28 MW cogeneration facility at the campus s Central Utility Plant.[12]

The next three types of categorical exemptions ***may*** apply to DG facilities, but they do not provide as clear a fit for DG facilities as the cogeneration facility exemption.

Existing Facilities

Section 15301 of the CCR provides a categorical exemption for existing facilities. These include,

> operation permitting or minor alteration of existing public or private structures, [and] mechanical equipment, involving negligible or no expansion of use beyond that existing at the time of the agency s determination. Examples include but are not limited to:

[12] State Clearinghouse No. 2000038044

a(Interior or exterior alterations involving such things as electrical conveyances
b(Existing facilities of both investor and publicly-owned utilities used to provide electric power

The above section suggests that minor alterations of existing structures are exempt from CEQA review, provided the project does not significantly expand ***the use*** of the facility beyond the uses already allowed at the site by the permitting agency.

The representative from the Sacramento Municipal Utility District said that photovoltaic (PV) systems installed on residential roof tops through its PV commercialization program (described in Building Permit section below) do not require any land-use permit (or CEQA review), only a building permit. His understanding is that they are exempt because they are installed on existing residents.

Section 15301 also suggests that DG equipment installed at existing sites of electric utility companies (e.g., substations) might also qualify for CEQA exemption.

New Construction or Conversion of Small Structures

Section 15303 of the CCR creates a categorical exemption for:

> construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure

This section applies to the construction of additional, new dwelling units, multi-family housing, and small commercial structures (e.g., stores, motels, offices, and restaurants) on land already zoned for these uses and densities. It does not state specifically that DG facilities would qualify as small new equipment and facilities in small structures, but certain types of DG may qualify if they have small footprints and the site s zoning allows power generation to occur there.

Replacement or Reconstruction

Section 15302 of the CCR exempts from CEQA:

> replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will be substantially the same purpose and capacity as the structure replaced, including but not limited to:
> (c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion in capacity

This section may apply to the eventual replacement of one DG facility with another one, provided its physical or generating capacity remains the same.

Exceptions to Categorical Exemptions

The CEQA Guidelines include a number of exceptions regarding eligibility for categorical exemptions. Two exceptions which apply to all classes of projects include significant effect and cumulative impacts.

The exception for significant effect prevents a CEQA exemption for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to ***unusual circumstances***. [emphasis added] This exception appears to give the permitting agency broad authority to deny a categorical exemption.

The CEQA Guidelines also state, [a]ll exemptions are inapplicable when the *cumulative impact* of successive projects of the same type in the same place, over time is significant. [emphasis added]. Many air districts and others at the workshop expressed concern that fossil-fueled DG facilities in an area would create cumulative impacts. If a permitting entity tracks the number of DG facilities being permitted in an area over time and it perceives that too many are being installed, then it has the option to require individual projects to have a CEQA review rather than using a CEQA categorical exemption.

Potential CEQA Streamlining Strategies

DG projects which are not CEQA exempt are subject to some level of environmental review. The CEQA process requires the public agency to perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are significant. The determination of significance is one of the key decisions in the CEQA process. This decision leads to the preparation of either a Negative Declaration or an EIR, which involves the additional requirements to investigate the significant effects, to propose mitigation measures and alternatives, to respond to public comments, and to make findings on the feasibility of changing the project to reduce or avoid the significant effects.

Public Resources Code section 21082.2 requires that public agencies determine significance based upon substantial evidence in light of the whole record before the agency. Substantial evidence is defined to include: "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." Public controversy alone, without substantial evidence of a significant effect, does not require preparation of an EIR.

CEQA regulations promote the use of standards and thresholds that have been adopted to protect the environment as the means for determining the significance of project impacts. Where an applicable standard or threshold exists, an environmental change which complies with that standard or threshold would not be considered significant. CEQA encourages each public agency to develop and publish thresholds of significance and use these thresholds to determine the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect.

1. Set Thresholds of Significance

The Initial Study stage of the CEQA review process could be streamlined if local governments had thresholds of significance to determine whether a proposed project might exceed. All development projects must be evaluated for their potential impacts on a variety of environmental factors. The factors deemed by the staff to be the most relevant to DG projects are provided below with questions the local jurisdiction might ask when performing the initial study:

- Aesthetics — Will the DG project substantially degrade the existing visual character of the site and its surroundings?
- Air quality — Will the project violate any air quality standard or contribute significantly to an existing or projected air quality violation? Would it result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment (including ozone precursors)? Would it expose sensitive receptors to substantial pollution concentrations? Would it create objectionable odors?
- Hazards and hazardous materials — Are hazardous materials going to be used?
- Hydrology/Water quality — Would the project violate any water quality standards or waste discharge requirements?
- Land use and planning — Would the project conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact?
- Noise — Would the project expose people to noise levels in excess of local standards or excessive ground vibration?

2. Revise a Project to Mitigate its Significant Environmental Impacts

DG developers can expedite the CEQA review process by agreeing to mitigate the potential, significant environmental impacts of their project. The public agency would then be able to prepare a mitigated negative declaration, rather than a full EIR. As noted above, CEQA Guidelines set a six-month time limit for preparing mitigated negative declarations, which full EIRs can require up to one year.

3. Addressing Cumulative Impacts through a Program EIR or Master EIR

Many speakers expressed concern that if many DG projects were permitted and installed in an area, their cumulative impacts could become significant. The major concern was the cumulative impact on ambient air quality, but it was noted at the workshop that other kinds of environmental impacts could accumulate as well. The cumulative impacts from several projects are defined as:

> the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably forseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Project EIRs, those prepared for individual projects, must include an analysis of the potential cumulative impacts. This analysis is usually difficult to do, because agencies may not know how

many DG facilities already exist in the area (e.g., those which are permit exempt) and they do not know how many DG facilities will likely be proposed in the future.

Rather than addressing the issue of cumulative impacts on a project-by-project basis, CEQA allows public agencies to address them in a master EIR or a program EIR. Once either of these documents has been certified by the agency, future environmental documents for individual DG projects can refer to the master EIR or the program EIR and avoid conducting further cumulative impact analyses.

Program EIR

According to CEQA Guidelines, a program EIR is an environmental document which may be prepared on a series of actions that can be characterized as one large project and are related geographically. Using a program EIR can provide the following advantages:

5(Provide an occasion for more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual project,
6(Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis;
7(Avoid duplicative reconsideration of basic policy considerations,
8(Allow the public agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
9(Allow reduction in paperwork.

The process of preparing EIRs for fossil-fueled DG projects could be streamlined by the agency preparing a program EIR The program EIR would analyze all of the possible effects, including cumulative impacts, and develop feasible mitigation measures and alternatives to address these significant impacts. DG project developers, who have proposed projects in that geographic area, would be required to adopt the mitigation measures cited in the program EIR into their individual project plans. And if they are found to be within the scope of the program EIR, *no further environmental documents would be required.* This approach offers many possibilities for public agencies to reduce their costs of CEQA compliance and still achieve high levels of environmental protection.

Master EIR

A master EIR is an alternative to a project or a program EIR, but like a program EIR, it is intended to streamline the later environmental review of projects that are included within the scope of the master EIR. According to CEQA Guidelines, a master EIR shall, to the greatest extent feasible, evaluate the cumulative impacts, growth-inducing impacts, and irreversible significant effects on the environment of subsequent projects.

A public agency is allowed to prepare a master EIR for a project that consists of smaller individual projects which will be carried out in phases. After a master EIR has been prepared and certified, subsequent projects which the public agency determines as being within the scope of the master EIR will be subject to only limited environmental review.

4. Educate Local Jurisdictions and the Public about DG Technologies and their Environmental Impacts

Currently, individual DG project developers must spend time and money educating regulators and the public about DG technologies. Many industry participants at the workshop suggested that the permitting process can be streamlined by shifting this educational burden to the State. Specifically, they felt that the Energy Commission or others should provide technical, non-product-specific information about DG technologies to staffs of local government and the public, to help them understand the general concept of DG , where they have been permitted already, and their possible environmental impacts.

Because certain DG technologies are emerging technologies or have not been previously and regularly introduced into communities, the environmental and public health and safety impacts of certain types of DG are unknown to local planners or not clearly defined by project developers. There are currently no readily available summaries of the potential environmental impacts for typical DG technologies. As a result, identifying suitable mitigation measures (where applicable) and conditions of approval may require several iterations of information exchange between the project developer and the agency.

At the workshop, a number of people emphasized the importance of educating public members regarding DG technologies and their environmental impacts so that they can provide informed comments during the CEQA process. The public typically raises not-in-my-back-yard (NIMBY) concerns, but certain neighborhoods may also raise environmental justice concerns. The public is concerned about the real or perceived significant environmental effects from a project. For some projects, however, environmental impacts of a project may be subordinate to social-economic issues such as the project s effect on property values.

5. Prepare a Draft Model Ordinances for Distributed Generation Facilities

In the early 1980 s when local governments were asked to approve wind farms in their jurisdictions, the Energy Commission developed and distributed a *Draft Model Ordinance for Small Wind Energy Conversion Systems*. This draft ordinance was adopted by a number of local jurisdictions. In March 1998, the National Wind Coordinating Committee established a Siting Subcommittee, which updated this earlier work and published the *Permitting of Wind Energy Facilities Handbook*. Similar documents could be published for other types of DG technologies.

B. Issues Regarding the Building Permit Process

The workshop was not attended by city and county staff involved in permitting DG equipment. Project developers, however, shared their experiences in applying for and obtaining building permits for different types of DG equipment. The issues or problems they raised were the following:

- The local government staff do not know how to evaluate plans for DG.
- The codes do not address DG technologies.
- Codes vary from jurisdiction to jurisdiction.

These issues suggest that the local government building department staff need some type of information, training or technical assistance regarding DG permitting. They also suggest that work is needed to develop more uniform building codes.

The Commission staff believes, however, that an assessment of building department staff is necessary to determine what kind of information or training they really need regarding DG technologies and what would be the most effective strategies for delivering information or training services to them.

This section addresses the following questions:

- When are building permits required?
- Can certain types of DG qualify for exemption from building permits?
- Can the building codes be made more uniform from jurisdiction to jurisdiction?

It also highlights work being done by others to streamline the building permitting process for DG technologies.

Building Permit Process Description

Building codes provide ***minimum standards*** for the protection, safety, and welfare of the public, property and the environment. They are not intended, however, to limit the appropriate use of materials, appliances, equipment, or methods of design or construction that are not specifically prescribed by the code. If the local building official determines that the proposed alternative is equivalent to that prescribed in the code, then the alternative can be used.

The California Building Standards Code (CCR, Title 24) applies to all buildings and structures in the state. The following parts of the Code are relevant to DG installations:

- California Building Code (general building design and construction requirements, including fire-and life-safety and field inspection provisions)
- California Electrical Code
- California Mechanical Code (mechanical standards for the design, construction, installation, and maintenance of heating, ventilating, cooling and refrigeration systems, incinerators, and other heat-producing appliances)
- California Plumbing Code
- California Fire Code

Using these codes, building department staff issues permits, reviews plans and performs field inspections to determine code compliance. Residential plans are reviewed by a plan checker for evaluation of all building systems and components. Commercial plans are reviewed by a staff of specialists, each evaluating a specific discipline, including structural components, electrical, plumbing, and mechanical systems.

Developers of DG projects can apply for building permits at the same time as they apply for discretionary entitlements, such as rezoning or conditional use permits (if discretionary entitlements are needed). The rezoning or conditional-use permit, however, must be approved ***before*** the local jurisdiction will approve the building permit.

Building Permit Applicability

All ***new*** construction requires a building permit. And, all additions or replacements of the following equipment or building structural components require building permits: heating and air conditioning equipment, water heaters, new electric circuits, electric services change, re-wiring, water service replacement, sewer service replacement, gas line replacement, and re-plumbing. Construction cannot begin until the local jurisdiction has received the building permit fee and issued the building permit.

Building Permit Exemptions

Building owners do not need to obtain building permits to install or replace appliances. Appliances are exempt from building permits, because their installation does not require any new construction or modifications to structural components of an existing building (e.g., electric wiring, gas lines). It is not obvious that certain types of DG projects could be exempted from obtaining building permits.

Local agencies are exempt from building ordinances of the city or county government where it will be constructing for facilities for the generation, storage, or transmission of electrical energy [13] Although qualifying local agencies may be exempt from the building permit process, code compliance would be assured by the local agency s own staff.

Opportunities for Building Permit Streamlining

This subsection discusses a few of the ideas raised at the workshop about how to streamline the building permitting process for distributed energy generation projects. The staff conducted further research on these ideas and presents its findings below.

1. Educational Services to Building Department Staff

On an annual basis, the city of Sacramento, alone, issues more than 12,000 building permits, and conducts more than 80,000 inspections. With this kind of workload, it is not surprising that

[13] CGC Section 53090 et. seq. The definition of local agencies includes utility districts providing electrical services, such as SMUD.

building department staff lacks time to develop in-house expertise about DG technologies, applicable codes, appropriate code interpretations, and inspection procedures. If they were to receive many applications to permit DG at the same time, local jurisdictions might be able to justify having their staff specialize in reviewing distributed-generation-project applications, issuing permits and inspecting projects or contracting with outside experts. Until that time, however, they may prefer to receive training or one-on-one technical assistance on distributed-generation permitting just in time.

2. Obtain Underwriters Lab or other Testing Laboratory s Certification

The workshop included a presentation by a microturbine manufacturer, who mentioned that his company meets the various requirements of customers by providing them with assurances in the form of a UL certification. [14] UL is an independent, not-for-profit product safety testing and certification organization. It tests products for public safety in five testing laboratories in the United States. Products eligible to carry the UL mark are ones that have had samples evaluated that meet UL requirements and which are periodically checked by UL at the manufacturing facility. Local building departments use the UL or other national testing laboratory listing as a measure of a product s safety and acceptability. Therefore, one way to streamline the building permit process is for DG equipment manufacturers to obtain such listing for their products.

UL offers a testing and certification service for DG equipment and energy sources, because many utilities have requested UL's involvement in developing certification and performance testing requirements for grid interconnected devices. The UL staff is now actively developing requirements for the following DG products and devices:

- Photovoltaic panels and modules
- Fuel cells
- Engine generators and microturbines
- Wind power generators
- Inverters, converters, charge controllers and utility interconnection requirements
- Transfer switches

The UL claims it has the capability to evaluate virtually any DG product.

3. Educate and Perform Outreach to Building Inspectors

Other activities conducted by the PV Alliance to support acceptance of their projects by local building department staff include the following:

- Conducting technical training for building inspectors
- Exhibiting at building official trade shows and conducting training sessions at their conferences
- Publishing articles in building trade journals

[14] Some photovoltaic products are also UL listed.

- Sponsoring development of installation protocols for roof-mounted systems

1. The PV Alliance is also developing a Web Site for building inspectors to access more easily all relevant sections of the National Electrical Code (NEC¤) relating to PV inspections.

4. Develop Standard Permit Application Packages

At the workshop, a representative from SMUD explained what it has done to streamline building permitting and inspections of PV systems on residential roof-tops in the Sacramento region. Specifically, SMUD has developed, with input from the five jurisdictions within Sacramento County, a standard permit application package for PV projects.

5. Provide Research Assistance on Multiple Agencies Permit Requirements

As with many other siting and approval processes, there is not a comprehensive resource(s) for identifying the necessary permits (or exemptions) and approvals for DG project development. Often there are several agency approvals that must be obtained, and the amount of information that must be provided to each agency can greatly differ. As a result, project developers are left relying on experiences shared by others or on limited agency guidance. Several questions must be answered to ensure that all necessary approvals are obtained:

- Which agencies need to be involved?
- What regulations apply?
- What are the application forms?
- Where are the forms? How much do I have to pay?

Additionally, given the lack of a comprehensive resource and the emerging nature of the DG market, a history of DG siting experiences is not available for project developers. Typically, lessons learned from previous experiences can provide a road map for others by highlighting the pitfalls encountered and how they were overcome.

One resource that is currently available is the Cal EPA s Web Site, CalGOLD, that offers permit assistance to many types of businesses. CalGOLD is a web-based resource, and additional follow-up with Cal EPA and one of its 13 permit assistance centers is also available. By identifying a business type proposed in a certain region, relevant permit agencies and contact information are provided. The intent of CalGOLD is to assist businesses, particularly small businesses, with obtaining necessary permits. However, at this time, there is not a category of DG as part of CalGOLD s definition of business type.

6. Develop Uniform Codes for Distributed Generation

At the workshop, an equipment manufacturer s representative complained that the fire codes vary from jurisdiction to jurisdiction in California. The lack of uniform codes is relevant not only to DG projects, but to other types of construction as well. Uniformity among building codes is supposed to be accomplished by having all local jurisdictions adopt the California Building Standards Code. Local governments are only allowed to modify these standards if the

governing body (i.e., City Council or County Board of Supervisors) makes express findings that an amendment is necessary because of local climate, geological or topographical conditions (Heath and Safety Code (HSC) sections 18941.5 and 17958.7). Governing bodies may adopt only more-restrictive amendments. Furthermore, their amendments are only effective and operative if they have been filed, with the local jurisdiction s express findings, with the California Building Standards Commission (HSC 17958.7).

The California Building Standards are applicable throughout California whether or not the local government takes an affirmative action to adopt them. Inconsistency among building codes throughout California, therefore, may be caused by local jurisdiction amendment of the State Building Standards Code to reflect local differences.

According the State Building Standards Commission, some local governments may be unaware of their obligation to adopt and enforce only the State Building Standards Code[15]. The Code is based on model codes developed by national organizations, comprised of officials who are responsible for enforcing building codes in their state and local jurisdictions. These model codes, however, may have been modified by the California state agency that is responsible for developing its part of the State Building Standards Code. Another cause of inconsistency, therefore, may be that local governments are enforcing the model codes, rather than enforcing the California State Building Standards Code.

These model codes are as follows:

- Uniform Building Code of the International Conference of Building Officials
- National Electrical Code of the National Fire Protection Association
- Uniform Mechanical Code of the International Conference of Building Officials
- Uniform Plumbing Code of the International Association of Plumbing and Mechanical Officials, and
- Uniform Fire Code of the International Conference of Building Officials and the Western Fire Chiefs Association.

Tackling the issue of inconsistent codes to help streamline the building permit process for DG would be an important step.

Silicon Valley Uniform Code Program

The Silicon Valley Uniform Code Program was conducted by 27 cities and two counties to improve the Silicon Valley region s regulatory climate by promoting building code consistency and reducing regulations, while maintaining high safety standards. Program sponsors were Joint Venture: Silicon Valley Network, Santa Clara Valley Manufacturing Group and the Peninsula Chapter of the ICBO. Specifically, these local jurisdictions reduced the number of local amendments to the State Building Standards Code by 97 percent: from more than 400 to 11. Information on this program is available at the Joint Venture: Silicon Valley Web Site:

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[15] See Building Standards Bulletin 99-01 at the California Building Standards Commission Web Site: < www.bsc.ca.gov >

< www.jointventure.org/initiatives >. In addition to this regional effort, the website highlights building-permit-process streamlining projects completed by the cities of Sunnyvale, Cupertino and Fremont.

Electric Code

The DG industry is already helping to update the electrical code. For example, the PV Alliance — a consortium of PV equipment manufacturers, vendors, utilities, and State agencies, worked on an Institute of Electrical and Electronic Engineers (IEEE)[16] committee to develop IEEE 929, which contains the basic safety and performance requirements specified by most utilities for static inverters and charge controllers for use in PV power systems. Once developed, these requirements were subsequently adopted by UL (as UL 1741) for its use in testing and rating inverters.[17]

IEEE has established IEEE Standards Coordinating Committee 21 to oversee development of standards for fuel cells, PV, dispersed generation, and energy storage. The committee coordinates efforts in these fields among the various IEEE Societies and other affected organizations to ensure that all standards are consistent and properly reflect the views of all applicable disciplines. It also reviews all proposed IEEE standards in these fields before their submission to the IEEE-Standards Association Standards Board for approval and coordinates submission to other organizations.

PV Alliance members also worked on the National Electrical Code¤ to add PV system wiring requirements. The National Fire Protection Association (NFPA) publishes NFPA 70, National Electrical Code¤, which forms the basis for electrical codes in the United States. Adoption and enforcement of the National Electrical Code protects public safety by establishing requirements for electrical wiring and equipment in virtually all buildings. More specifically, the NEC¤ covers the following:

- the installation of electric conductors and equipment in public and private buildings
- industrial substations, and
- emergency and stand-by power.

C. Issues Regarding the Air Permit Process

The workshop was attended by some representatives from air quality districts and the ARB; comments from air agencies were provided in writing and at the workshop. Agencies shared their concerns regarding the potential increase in fossil-fueled DG technologies that may have public health impacts, with specific emphasis on diesel standby generators that may be deployed for peak shaving. Developers and technology manufacturers shared their interest in streamlining

[16] IEEE is a non-profit, technical professional association of electrical engineers, which develops electrical standards.

[17] Inverters convert direct current to alternating current and are common components of all distributed generation, not just PV systems.

the process for relatively clean, efficient technologies, with consideration for setting certification standards. The issues or problems that were raised include the following:

4. Currently, air districts exempt small fossil fuel-fired DG installations from their permitting processes, but the cumulative impacts to the environment and public health from multiple installations in a region may be significant.
5. Air quality requirements differ from district to district.
6. Emissions from fossil fuel-fired DG technologies are not as low as central power plant emissions on a pounds per megawatt basis.
7. Existing emergency diesel engines will be used for peak shaving and emit toxic air pollutants.
8. The air quality impacts from DG technologies are dependent on the type of equipment, fuel, and application.

Additionally, as identified at the end of the workshop, not all DG technologies should receive equal regulatory treatment; some renewable energy technologies and fuel cells have no or low emissions, while standby diesel generators should undergo more regulatory scrutiny if owners seek to increase their use. In this respect, the ARB is developing permit requirement guidelines for diesel engines. The Commission staff is continuing to discuss the air quality issues raised at the workshop with the ARB, as well as the California Air Pollution Control Officers Association and individual air districts.

This section addresses the following questions:

- When are air permits required?
- Can certain types of DG qualify for exemptions from air permitting?
- Can certain types of DG qualify for some form of streamlined air permit review? Which types? Streamlined how?

This section also highlights air district regulatory and policy activities that are already underway to address DG permitting issues.

Air Permit Process Description

Depending on the size of a DG technology and its emissions profile, the air permitting process may be relatively straightforward (e.g., over the counter) or may involve several technical evaluations. In non-attainment areas, the permitting process may include evaluating whether additional emission controls are necessary to reduce emissions, obtaining emission reduction credits, and evaluating potential air toxic emissions impacts.

Permit applications typically include completing and submitting a district form(s), estimating emissions, providing equipment specifications, an operations plan, site plan and facility map, paying fees, and providing the results of various technical analyses. The staff reviews the air permit application, evaluates whether BACT applies or air toxics modeling (or other air quality

analyses) is needed, and determines if emission reduction credits[18] are required. BACT is an emission limitation taking into account energy, environmental and other economic impacts, and costs. The modeling analyses estimate the impacts to nearby residents and businesses. Emission reduction credits (if needed) must meet certain criteria, e.g., permanent, quantifiable, real, surplus, and enforceable.

Construction typically cannot begin until the air district has completed its evaluation and issued an authority to construct. It should be noted, however, that in the Bay Area Air Quality Management District (AQMD), certain projects eligible for accelerated permit processing can begin construction as soon as an application and fees have been submitted (see below). After equipment has been installed, emissions testing may be required.

Air Permit Applicability

Any air pollutant-emitting equipment or process is potentially subject to some form of air quality agency review or tracking, depending on the quantity of air pollutants emitted from a DG technology or on its size (e.g., hp, MW, MMBtu/hr). An air permit (or some form of review by the air agency) is typically required for fossil-fueled technologies, both natural gas and liquid fuel-fired operations, including reciprocating internal-combustion engines and gas turbines.

Air Permit Exemptions

Each district has a list of equipment and operations that are explicitly exempt from air permit requirements. Certain sizes of DG technologies are expressly exempt from permitting: engines are typically exempt if they are less than 50 hp, and turbines are typically exempt if they are less than 300 kW. Exemption levels vary from district to district based on equipment capacity, heat input (MMBtu/hr), or emissions (lbs/day).

Air districts have commented that lowering emissions thresholds for permitting exemption may be necessary to address the emissions from DG technologies that may proliferate and result in additional regional air quality burdens.

Fuel cells, that emit minute quantities of criteria pollutants, are explicitly exempt from permitting in the South Coast AQMD. Other air districts do not explicitly exempt fuel cells. Other California air districts could consider adding low-emitting, natural-gas fuel cells to their own lists of exempted facilities as well, if they have not done so already.

Potential Air Permit Streamlining Strategies

1. Setting Standards

Air pollution regulatory agencies and DG project developers suggested setting technology-specific maximum allowable emission levels for DG technologies. DG equipment below these levels would qualify for expedited permitting.

[18] Emission offsets are applicable in areas of nonattainment.

By knowing the allowable, technology-specific emissions and by projecting potential market penetration of exempt DG technologies, two objectives could be achieved: (a) Air districts would gain the ability to estimate regional emission impacts, and (b) manufacturers would know the technical performance targets to achieve when designing equipment improvements.

At the workshop, there was universal agreement among representatives from industry, regulatory entities, the public, and environmental organizations on the need for standards for use in evaluating and permitting DG projects. Although all agreed on the need for standards, there may not be agreement on the types of standards needed and what those standards should be. Suggestions from the workshop included the following:

- Uniform emissions standards: BACT standards for statewide use (e.g., pounds of a pollutant per kilowatt-hour),
- Industry standards for specific technology groups,
- Performance standards,
- Maximum size limits to prevent a project from becoming a land use issue,
- Waste discharge limits, and
- Noise limits.

Manufacturer representatives said standards would be used by industry as benchmarks, which are to be achieved through product research and development, if necessary. Once their equipment meets the standards, then companies would be able to mass produce their equipment, thereby lowering DG project costs. The economics of DG projects are improved when equipment does not need to be customized for different markets within California.

This subsection presents options for specific types of emission standards and approaches for permitting based on them.

Uniform BACT Standards

Fossil-fueled technologies are typically required to meet BACT emission standards. These standards are applied technology by technology. Currently, BACT standards are viewed as problematic for several reasons: (a) they are not consistent throughout the state, (b) fuel efficiencies for clean power output (lb/MW-hr) are not considered in the BACT determination, and (c) BACT is a moving target — as soon as a control is considered as achieved in practice, the BACT level is further ratcheted down. Therefore, by setting uniform BACT standards that are output based, both the efficiency considerations and certainty in the air permit process would be addressed.

At the workshop, air districts raised the concern that DG technologies are more polluting than central station power plants, if DG technologies were to generate as much electricity as the larger plants. In response, DG equipment manufacturers have raised concerns that holding DG sources to equally stringent emission standards as central plants is inappropriate, because emission controls on larger units are relatively lower than the cost for controlling emissions from DG

units. They believe that holding DG to the same emission standards could ultimately jeopardize the introduction of DG technologies, because they would not be cost-effective to install.

Environmental Performance Standards

Output-based emission standards (lb/MW-hr) would take into consideration the potential efficiency component of power generation. Combined heat and power applications taking advantage of waste heat have greater efficiencies, which is directly related to lower emissions. Currently, engines and turbines are evaluated based on heat input (lb/MMBtu), concentration rates (ppm), or mass emission rates (lb/hr); output-based standards have not been applied in some cases to these technologies. Output-based standards have been applied to electric steam generating boilers; therefore, it is conceivable that the same metric can be applied to DG technologies.

In Texas, air regulators are already pursuing environmental performance standards for DG technologies. The Texas utility and environmental commissions and the equipment manufacturers are collaborating to identify appropriate standards for the permitting and installation of DG technologies. They expect to develop output-based standards. The milestones for this effort include a draft standards proposal by the end of summer 2000 and effective standards by the beginning of year 2001. Setting environmental performance standards, (e.g., certification levels) and uniform BACT in California would require collaborative effort by the Energy Commission and air quality agencies.

Two air agencies, the Bay Area AQMD and the South Coast AQMD, presented highlights of their agencies efforts for accelerated permit processing.

2. Accelerated Permitting

The Bay Area has a program for sources that would emit less than 10 lbs/day and have no significant air toxic impacts. Under this program, construction can begin upon acceptance of the permit application.

3. Equipment Pre-Certification

Currently, the South Coast AQMD pre-certifies residential natural-gas-fired water heaters, which meet certain emission standards. Given a performance standard, the water heater is tested by an independent laboratory to determine if its emissions meet the standards. If the requirements are met, the equipment is certified and recertified triennially to ensure its performance. Pre-certified equipment can be installed without further air permitting. Equipment which does not meet the standard, however, cannot be installed within the district s jurisdictional boundaries.

Both the Bay Area and the South Coast AQMDs have existing equipment pre-certification programs for internal combustion engines. The South Coast s program has pre-certified several engines already, but the Bay Area s program has not received much industry interest to date. In such a program, pre-certification requests are initiated by the manufacturer. Users of pre-certified equipment then undergo a streamlined permitting process.

Other air districts may have other kinds streamlined permit programs applicable to DG technologies, but the staff did not learn about them in time to include them in this publication.

Permitting Diesel Engine Generators

Air districts have relatively straightforward permitting processes for diesel standby generator engines. These engines are generally limited to annual hours of operation ranging from 52 to 200 hours. Allowable annual hours vary from district to district and provide time for engine readiness testing and maintenance. The criteria for operating these engines are specific to actual power outages and typically do not apply to distribution grid support for potential brown outs. However, it should be noted that some agencies may broadly interpret their regulations to provide for the flexibility of operating these engines as peak shavers within an allowable 200 hours per year.

Engines must meet certain emission requirements and other permit conditions. Historically, permitting of these engines was not included in evaluating air toxic impacts or more stringent controls. More recently permitted engines, however, are equipped with additional controls (e.g., timing retard, aftercooler, turbocharger).

The ARB is in the process of developing final permit guidelines for new and existing diesel engine generators operating as standby, peak, or baseload units (see below). Special attention is being given to this equipment because of the State s recently developed diesel particulate air toxic risk factor. Previously, the individual gas and particulate constituents of diesel exhaust were evaluated for risk posed to the public. The new risk factor effectively represents the risk posed by the total diesel exhaust (vs. individual constituents) and results of risk evaluations using the new factor effectively result in the potential need for particulate controls (e.g., filters, catalysts).

Several air districts expressed concern at the workshop that existing diesel standby generators would be converted to peak shaving units and thus result in increased regional emissions, particularly during the hottest and smoggiest days. One of the workshop speakers noted, however, that when converting from standby to non-standby (status needed for peak shaving), such engines would have to amend their air permits at which time the district would address its concerns about increased emissions, such as requiring retrofit BACT controls and possibly emission offsets.

ARB Diesel Particulate Matter Risk Management Process

The ARB is in the midst of determining what regulations it will propose to reduce particulate matter (PM) emissions from diesel-fueled engines and vehicles. These actions are the second step in a comprehensive two-phase public process to address toxic air contaminants (TAC). In the first phase of this State-mandated process, the identification phase, a risk assessment of diesel PM established that diesel PM has no threshold exposure level, i.e., it has no identifiable lower limit to toxicity. The identification process culminated in August 1998, when the ARB formally identified PM emissions from diesel-fueled engines as a toxic air contaminant.

After the identification of diesel PM as a TAC, the ARB began the second phase, the control or risk management phase of the process. In this risk management phase, the ARB, in consultation with the local Air Pollution Control / Air Quality Management Districts (districts), the public, and industry will determine the best methods to reduce exposure to diesel PM. The first step in this phase is to develop a *Diesel Risk Management Plan*. This Plan will be the road map that the ARB will follow to reduce diesel PM emission from mobile, portable, and stationary diesel engines.

To ensure full opportunity for public consultation and participation in the risk management process, the ARB staff invited interested industries, associations, environmental groups, governmental agencies, and other interested parties to serve on an advisory committee to address TACs from diesel-fueled engines. The Advisory Committee serves as a forum for on-going communication, cooperation, and coordination in the identification of additional opportunities to further reduce TAC emissions from diesel engines. The advisory committee includes four subcommittees: the Stationary Source, Fuels, Risk Management, and Mobile Source/Alternative Strategies Subcommittees.

A draft of the *Diesel Risk Management Plan* is expected in the summer of 2000 with a final report due the fall of 2000.

As a result of developing the *Diesel Risk Management Plan*, the ARB has determined that all categories of diesel-fueled engines and vehicles have the potential to pose a significant health risk. The ARB is expected to propose air toxic control measures (ATCMs) that will significantly reduce the risk from both new and existing diesel-fueled engines. Over the next three to seven years, many of these ATCMs will be implemented and are expected to require aggressive control of diesel particulate matter (90 percent control from existing levels) for most sources. With respect to stationary diesel-fueled engines, the ARB staff is proposing to develop ATCMs to address both new and existing engines, including engines used to generate power for emergency and non-emergency use.

Within six months of the adoption of any ATCM, the local air pollution control districts are required to adopt regulations that are at least equally as effective.

In addition to ATCM development, the ARB is developing guidance for the permitting of new stationary diesel-fueled engines which is entitled *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines.* This permitting guidance is to be finalized in September2000. The proposed permitting guidance will recommend the use of control equipment that achieves greater than 90 percent control of diesel particulate matter emissions. The ARB anticipates that the districts will incorporate the guidance's recommendation into their new source permitting programs. However, nothing in the guidance precludes the districts from adopting more stringent requirements.

RACT/BARCT Guidance for Spark and Diesel Internal Combustion Engines

The California Clean Air Act of 1988 requires, among other things, that the districts develop attainment plans to achieve the state ambient air quality standards as expeditiously as practical. These plans must include regulations that require control technologies for reducing emissions from existing sources. Reasonably Available Control Technology / Best Available Retrofit Control Technology (RACT/BARCT) determinations are developed to aid the districts in developing regulations to attain and maintain the state ambient air quality standards. The determinations also promote consistency of controls for similar emission sources among districts with the same air quality attainment designations.

Currently, the ARB is working with the districts on the development of a RACT/BARCT Guidance document for spark ignited internal combustion engines. A draft guidance document is due in the summer of 2000 with a final document due in the fall of 2000. The ARB may develop RACT/BARCT Guidance for compression ignition engines as part of the ATCM development process mentioned above.

IV. CONCLUSIONS AND RECOMMENDATIONS

Based on the work performed in this proceeding, the ability to streamline any CEQA review or permitting processes will take a combination of activities at the State and local levels. This section responds to the CPUC s request to identify opportunities to streamline the CEQA review and permitting process for DG technologies and offers conclusions and recommendations for the Energy Commission to consider.

A. Conclusions

1. Can certain types of distributed generation qualify for exemption from CEQA?

Yes. Certain types of DG *are* exempt from CEQA. These include cogeneration facilities at existing facilities which meet specific eligibility criteria. Other types of DG systems may also qualify for CEQA exemption if they fit into the following classes of CEQA-exemption facilities:

- Existing facilities (Class 1)
- Replacement or reconstruction (Class 2), and
- New construction or conversion of small structures (Class 3).

2. Can certain types of distributed generation qualify for some form of streamlined CEQA review?

Yes. The CEQA review process for negative declarations is limited to six months, while the process for EIRs is limited to one year. The types of DG which qualify for negative declarations are those which do not pose significant effects on the environment. Thresholds of significance, should be defined more clearly by local jurisdictions, which have not already done so.

It is possible that the cumulative impacts of many insignificant DG projects may cause a local jurisdiction to require a full EIR for an individual DG project, even if its incremental impacts are small. One way to address the issue of cumulative impacts is to prepare a program EIR. The results of such a program EIR would be useful to local agencies with land-use planning or air quality management responsibilities in the processing of negative declarations for qualifying DG technologies.

3. Can certain types of distributed generation technologies qualify for a streamlined land-use permitting process?

Yes. The land-use permitting process could be streamlined by developing draft model ordinances for categories of DG technology and provide these draft ordinances to local governments for possible adoption.

4. Can certain types of distributed generation qualify for exemption from building permits?

Probably not. DG technologies deemed to be appliances may not need building permits, but only if their installation would not involve new electric circuits, etc.

Local agencies, such as SMUD, are exempt from obtaining building permits for constructing electric generation, storage, and transmission facilities.

5. How can the building permit process be streamlined for distributed generation?

The workshop produced a number of suggested strategies to streamline the building permit process. These include the following:

- Providing educational services to the staffs of building departments,
- Obtaining a UL or other nationally recognized testing laboratory s listing for the DG equipment or device,
- Encouraging local jurisdictions to work together to reduce the number of local amendments to the State Building Standards Code, as was done by the Silicon Valley Uniform Code Program,
- Developing and using standardized permit application packages, and
- Providing permit assistance to DG project developers, which helps them understand what approvals they must obtain.

6. Can certain types of distributed generation qualify for exemption from air permits?

Yes. DG equipment which do not emit air pollutants do not need to obtain air permits. Specifically, some renewable energy equipment (e.g., wind, photovoltaic and hydroelectric) and energy storage equipment (e.g., batteries and flywheels) are air-permit exempt.

Also, DG equipment with air emissions below specific permitting thresholds (set by the district) are exempt from air permitting. For example, fuel cells do not need air permits when they are installed in the South Coast AQMD.

7. How can the air permit process be streamlined for distributed generation?

The workshop produced a number of strategies to streamline the air permitting process. These include the following:

- Developing (statewide) uniform BACT standards (lbs. per kWh) for DG
- Pre-certifying DG equipment
- Creating an expedited permit process for the lowest-polluting equipment
- Assisting DG projects in obtaining emission reduction credits

B. Staff Recommendations

This section presents the Energy Commission staff s recommendations regarding what can be done to facilitate in CEQA review and permit process for DG projects.

1. Clarify Energy Commission policy regarding distributed generation

The Energy Commission should articulate in policy why it believes that qualifying DG projects should undergo streamlined CEQA review and permit processing.

This policy could provide the basis for the development of local government policies and procedures to facilitate the deployment of DG technologies, where appropriate.

2. Clarify Energy Commission s role in CEQA review and permit streamlining

The Energy Commission does not seek to replace local jurisdiction siting authority regarding DG facilities. The Energy Commission, however, needs to define its role in relationship to other state and local agencies and the DG industry in facilitating deployment of DG technologies.

The staff recommends that the Energy Commission work with the ARB, local air districts and the California Association of Pollution Control Officers to facilitate air permitting for DG technologies, after these entities determine they want to pursue this course of action.

The staff recommends that the Energy Commission coordinate with Cal EPA to explore options for using its permit assistance centers and the CalGOLD Web Site to help facilitate deployment of DG projects.

3. Recommended Energy Commission Activities

Based on a clear understanding of the Energy Commission s role, the staff recommends the following activities be conducted pursuant to that role.

The Energy Commission should provide information services ***to California cities and counties and other local agencies*** to help them conduct efficient environmental review/land-use permitting and building permitting processes for DG project development.

The Energy Commission has established positive working relationships with cities and counties already through its Planning for Community Energy, Economic and Environmental Sustainability (PLACES) program, Energy Partnership Program, and training and technical assistance programs for the building energy-efficiency standards. A DG permit streamlining effort can build on these existing relationships.
The staff recommends conducting needs-assessment interviews with a number of local government planning and building department personnel to determine what information regarding DG they would find of most value and the information channels from which they would want to receive this information.

Based on the results of this study, the staff would develop draft information materials and then evaluate their usefulness in small feedback groups of local government planning and building department personnel. Once refined, these materials would then be disseminated to local governments through ***their*** preferred information channels.

Additional time is needed by Energy Commission staff to research local governments perspectives on the value of working with them to produce a model program EIR or master EIR.

The Secretary of the Resources Agency is seeking input from the Energy Commission and other state departments within the Resources Agency about possible amendments to CEQA. Possible amendments to CEQA should include amending the CEQA Guidelines for categorical exemptions to expand the definition of Class 29. Currently, only "cogeneration" systems at existing facilities are categorically exempt. Class 29 could be expanded to include ***all*** DG which meets the current eligibility criteria for cogeneration systems. The Commission should not propose to change the eligibility criteria included in Class 29. The staff believes that if cogeneration systems can be exempt, then other kinds of DG that are just as environmentally benign should be given the same exemption.

V. NEXT STEPS

A. Energy Commission Hearing on Draft Recommendations

Written comments on this document are due at the Energy Commission Docket Office by close of business on August 11, 2000. The next step in this proceeding is a Siting Committee hearing scheduled for September 7, 2000, at the Energy Commission s headquarters in Sacramento to review and adopt recommendations on how to streamline CEQA review and local agency permitting of DG.

After review of the written comments and additional outreach to local government planning and permitting agencies (see below), the Siting Committee will propose final recommendations on CEQA/Permit Streamlining for DG. The full Energy Commission will then consider the Committee s recommendations at a business meeting on November 1, 2000.

The CPUC will then take the Energy Commission s recommendations, provide an additional 21 days for parties to submit written materials commenting on the Energy Commission process and any factual misrepresentations, and submit a proposed decisions for ultimate CPUC adoption.

B. Additional Outreach to Local Government

The April 20 workshop was not attended by any representatives of city or county government typically involved in CEQA review/land-use permitting or issuing building permits. To better evaluate the specific information and technical assistance needs of local jurisdictions regarding DG, the Commission staff plans to contact a number of city and county governments directly to initiate a discussion about ideas for CEQA and permit streamlining. The staff may also contact organizations that these government agencies participate (*e.g.*, League of California Cities and California State Association of Counties)[19].

[19] The CPUC sought suggestions through Phase I testimony on how to perform outreach to State and local government entities or organizations representing local government interests. The purpose of this outreach would be to create awareness among these government entities about the implications of distributed generation projects. Of the 13 entities submitting direct testimony under Phase 1, four offered comments regarding government outreach. Commenting parties were the California Solar Energy Industries Association/California Center for Energy Efficiency and Renewable Technology, Latino Issues Forum, San Diego Gas and Electric Company and Southern California Edison (SCE). SCE s comments were the most extensive. Specifically, SCE characterized the roles and responsibilities of local government and regional planning agencies in addressing proposed DG projects and suggested how educating local governments about DG might facilitate their review of DG projects proposed within their jurisdictions. SCE s comments were organized into three subject areas: land use planning, public safety, and environmental impacts, and other externalities. SCE also listed the following agencies for targeted DG education: Local — cities and counties; Regional — air quality districts, regional water quality control boards, League of California Cities and California State Association of Counties, and various Associations/Councils of Government; and State — California Environmental Protection Agency, Governor s Office of Planning and Research, State Legislature.

Table 5:
Acronyms, Abbreviations, Terms

ARB	Air Resources Board
BACT	Best Available Control Technology
BARCT	Best Available Retrofit Control Technology
CADER	California Alliance for Distributed Energy Resources
Cal EPA	California Environmental Protection Agency
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CGC	California Government Code
CPUC	California Public Utilities Commission
DG	Distributed generation
DUA	Distributed Utility Associates
EIR	Environmental Impact Report
IEEE	Institute of Electrical and Electronic Engineers
MW	Megawatt
OII	Order Instituting Investigation
OIR	Order Instituting Rulemaking
PV	Photovoltaics
R&D	Research and Development
SCE	Southern California Edison
SDC	Solar Development Corporation
SDG&E	San Diego Gas and Electric
SMUD	Sacramento Municipal Utility District
UL	Underwriters Laboratories, Inc.

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Cal EPA	California Environmental Protection Agency
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CEQA	California Environmental Quality Act
CGC	California Government Code
CPUC	California Public Utilities Commission
DG	Distributed generation
DUA	Distributed Utility Associates
EIR	Environmental Impact Report
IEEE	Institute of Electrical and Electronic Engineers
MW	Megawatt
OII	Order Instituting Investigation
OIR	Order Instituting Rulemaking
PV	Photovoltaics
R&D	Research and Development
SCE	Southern California Edison
SDC	Solar Development Corporation
SDG&E	San Diego Gas and Electric
SMUD	Sacramento Municipal Utility District
UL	Underwriters Laboratories, Inc.

Government; and State – California Environmental Protection Agency, Governor's Office of Planning and Research, State Legislature.

I. Appendix A – Siting Committee Notice of Workshop with Scoping Questions

STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION

In the Matter of**:**	)	Docket No. 99-DIST-GEN-(2)
	)	
Exploring Revisions to Current Interconnection	)	
Rules Between Investor-owned and	)	
Publicly-owned Utility Distribution Companies	)	
And Distributed Generators	)	
	)	
Evaluating CEQA Procedures for Siting	)	
Distributed Generation Facilities	)	April 4, 2000

NOTICE OF SITING COMMITTEE WORKSHOP
EVALUATING DISTRIBUTED GENERATION CEQA/PERMIT STREAMLINING

Thursday, April 20, 2000
10 a.m. – 4 p.m.

California Energy Commission
1516 Ninth Street
Hearing Room A
Sacramento, California
(Wheelchair Accessible)

The adoption of D.99-10-065 at the California Public Utilities Commission (CPUC) provided a procedural roadmap for addressing issues related to distributed generation and distribution competition. The decision was the result of collaborative efforts among the CPUC, the Energy Commission, and the Electricity Oversight Board (EOB). As part of the next steps in the process outlined in the CPUC's Order Instituting Rulemaking R.99-10-025, the Energy Commission will lead an investigation to develop recommendations on whether local government agencies can use a streamlined California Environmental Quality Act (CEQA) process for the siting of certain types of distributed generation technologies. It should be noted that distributed generation technologies are typically less than 20 MW, and therefore are not

subject to the permitting authority of the Energy Commission (whose jurisdiction covers thermal power plants greater than 50 MW).

An Order Instituting Investigation was opened at the Energy Commission's November 3, 1999, business meeting to address interconnection rules (currently being addressed as a "Phase 1" issue), as well as CEQA streamlining (now getting underway as a "Phase 2" issue.) The main objective of this workshop and subsequent activity will be to produce a recommendation to the CPUC on whether certain types of distributed generation can qualify either for exemption from CEQA or, alternatively, for some form of streamlined CEQA review. In addition, this investigation will address whether and how the permitting process should be streamlined for distributed generation.

To begin the process of addressing these issues, the Energy Commission's Energy Facility Siting Committee (Commissioner Laurie, Presiding Member, and Commissioner Pernell, Associate Member) will hold a workshop to identify the major issues surrounding current environmental review and permitting practices and allow interested parties an opportunity to comment on several topic areas. This workshop notice is being mailed to the CPUC's R.99-10-025 service list, as well as to the state's air pollution control officers, planning managers, and engineering managers; city, county, and council of government planners; local building departments; and state agencies such as the Air Resources Board, Fire Marshall's Office, Resources Agency, California Environmental Protection Agency, and the Office of Planning and Research.

While an agenda is not attached to this notice, we expect the first part of the workshop to include presentations by Energy Commission and Air Resources Board staff, as well as presentations by distributed generation developers and utilities that have sought to permit distributed generators. The afternoon will focus on receiving feedback from those agencies that grant permits, as well as a discussion of the next steps to be taken. An agenda will be posted on the Commission's Web site approximately one week before the workshop. In order to identify the issues for discussion during this workshop and finalize the agenda, the Energy Commission requests that parties file written comments addressing any of the attached questions. Written comments should be received by the close of business on April 14, 2000. Any written materials should be addressed to the following:

California Energy Commission
Dockets Unit
1516 Ninth Street, MS-4
Sacramento, CA 95814

Docket Number: 99-DIST-GEN-(2)

Following the workshop, the Committee will consider recommendations for Energy Commission action. If you have questions regarding this notice, please contact Judy Grau by

telephone at (916) 654-4206 or by e-mail at jgrau@energy.state.ca.us. If you want information about or assistance in participating in this or other Energy Commission proceedings, please contact Roberta Mendonca, the Commission's Public Adviser, by telephone at (916) 654-4489, toll-free in California at (800) 822-6228, or by e-mail at pao@energy.state.ca.us. If you require special accommodation at the workshop, please contact Robert Sifuentes by telephone at (916) 654-5004 or by e-mail at rsifuent@energy.state.ca.us at least five days before the workshop.

QUESTIONS FOR THE SITING COMMITTEE WORKSHOP EVALUATING DISTRIBUTED GENERATION CEQA/PERMIT STREAMLINING

All parties planning to file responses to these questions are encouraged to send an original and 10 sets of written comments to the Energy Commission Docket Office by April 14, 2000. In addition to answering the questions, workshop participants are encouraged to provide a detailed rationale for their responses.

I. Scope of technologies

A. Which distributed generation (DG) technologies are most likely to be commercially available/encountered by permitting agencies first? What are the permitting issues associated with those technologies?

B. What size range of generating technologies should be considered eligible for permit streamlining?

C. Should electricity storage technologies be considered also? If so, what types should be considered?

D. Are the environmental impacts of all DG technologies currently sufficiently understood? If not, what additional information should be gathered or research undertaken? Are performance characteristics (e.g., emissions factors, cost, output rating, etc.) currently available? Who should provide this information?

E. What are the barriers (e.g., technological, cost, etc.) that are impeding DG permitting? What are the permitting barriers that are impeding DG deployment?

II. Information and training to be provided to government agencies

A. What information and training should be provided to fire departments and emergency response personnel? Who should provide this information?

B. What information and training should be provided to local building officials? Who should provide this information?

C. What information should be provided to air quality districts? Who should provide this information?

D. What information should be provided to the Energy Commission under its generator data regulations? (E.g., fuel type, capacity rating, location, etc.) Who should provide this information?

III. Procedural

A. What is the minimum recommendation that should come out from this investigation? What is the maximum that should be expected to be accomplished in the next several months? (*E.g.,* proposed state legislation, proposals for uniform local regulations, model procedures that may be adopted by local jurisdictions, statement of the issues with several recommendations.)

B. Can permit streamlining be addressed in a "technology neutral" manner? If so, give examples of how. If not, please describe how priorities can be established fairly.

C. What is the best approach to develop permit streamlining recommendations in this proceeding?

D. Should working groups be formed to address the CEQA/permit streamlining issue? If so, how many, and how should the work be divided among several working groups?

IV. CEQA Compliance

A. Under what circumstances would DG projects be categorically exempt from CEQA? Could this list of categorical exemptions be expanded to include other types of DG projects? Or could it be modified to consolidate all of the DG exemptions in one place? If the list of CEQA categorical exemptions is expanded, how will the current local permitting process adequately deal with these newly CEQA-exempt projects?

B. What mitigation measures would each DG project typically be required to adopt?

C. Who will be the "lead" (CEQA-process) agency for DG projects? If the lead is a local government, which state and federal agencies will be "responsible" agencies, providing input to the lead agency?

D. What should the Energy Commission (and/or other state agencies) do to help with the lead agency's analysis of environmental impacts?

E. Could a "program" environmental impact report (EIR), including cumulative impact analysis, be prepared so that it can be tiered to support individual DG project EIRs?

Appendix B – Notice of Siting Committee Workshop Evaluating Distributed Generation CEQA/Permit Streamlining

Dear Workshop Invitee:

Enclosed is a notice announcing a workshop that will be hosted by the California Energy Commission's Energy Facility Siting Committee on Thursday, April 20. As described in the notice, the Energy Commission has been charged with leading an investigation into whether local government agencies can use a streamlined California Environmental Quality Act (CEQA) process for siting certain types of distributed generation technologies. The list of people receiving this workshop notice has been expanded beyond the formal California Public Utilities Commission (CPUC) R.99-10-025 service list to include California's air pollution control officers, planning managers and engineering managers; city, county, and council of government planners; local building officials; and affected state agencies. In this manner, the Energy Commission is seeking to broaden participation in its investigation by including those entities who may be affected by the desire of developers and others to site, and receive permits for, distributed generation projects.

What is distributed generation?

Distributed generation (DG) refers to relatively small (from a few kilowatts to about 20 megawatts) electric generating and storage technologies for stationary applications. They may be owned by either electric or gas utilities, or by the state's industrial, commercial, institutional, and residential consumers. They include generating technologies such as diesel engines, fuel cells, small gas turbines, microturbines, solar photovoltaics, wind, and natural gas engines, as well as electric storage technologies such as batteries, flywheels, and superconducting magnetic energy storage.

Several factors have contributed to the increasing interest in DG over the last several years. First, utilities are increasingly interested in pursuing more reliable, cost-effective, and environmentally acceptable means to serve their customers. DG has been cited as one means of meeting increasing local loads while avoiding the impacts associated with upgrading utility transmission and distribution systems. Second, industrial, commercial, institutional, and residential customers are increasing interested in maintaining a highly reliable source of high-quality power to meet the needs of sensitive electronic equipment. Third, while some of the DG technologies noted above have been in use for decades, recent research and development has resulted in new technologies which show promise in providing customers with more options for customizing their electric service to meet their needs.

Because of this interest in DG, along with the recognition that there are numerous regulatory obstacles to overcome in order to create an environment in which DG can compete effectively in the electricity industry, the CPUC has opened this proceeding, in

cooperation with the Energy Commission, to examine the major issues and provide recommendations for addressing them. These issues include distribution system planning and operation, rate design, ownership of DG, interconnection of DG with the utility, and the issue at hand on CEQA and permit streamlining.

Why should I be interested in this workshop?

As the major regulatory issues are resolved, it is possible that there could be a proliferation of these projects seeking permits. DG is typically viewed as a supplemental technology to the large, central station generating facilities permitted by the Energy Commission (which certifies thermal power plants greater than 50 MW). Thus, while DG will not totally replace existing and proposed power plants in state, it could displace perhaps 10 to 30 percent of future central station generation. Also, while new large central station generating facilities tend to be sited near major transmission lines and away from large population centers, by its very definition DG is distributed among population centers to meet local needs.

Many local agencies may be unfamiliar with the environmental and performance attributes of some of the DG technologies, as well as the possible implications of planning for, and permitting, a large number of DG projects. This workshop will provide an opportunity for you to learn more about how DG may affect you, and give you an opportunity to share your experiences evaluating or permitting DG projects, or to express your concerns.

Where can I get more information on DG?

The Energy Commission provided an all-day training seminar on DG (also called "distributed energy resources") last April. The materials are available in PowerPoint and Acrobat PDF versions on the Energy Commission's distributed generation Web site at ***www.energy.ca.gov/distgen/documents/index.html*** . Scroll down to the bottom of the screen, and click on either the Power Point or Acrobat PDF version of the morning presentation entitled "Technologies" or the afternoon presentation entitled "Deployment/Case Studies/Agency Efforts."

Where can I get more information on the Energy Commission and CPUC proceedings?

Information on the Energy Commission's Order Instituting Investigation (which feeds into the CPUC's Order Instituting Rulemaking) can be found on the Energy Commission's Web site at **www.energy.ca.gov/distgen/index.html** . *From there you can obtain Commission notices, documents, and filings for this proceeding.*

Information on the CPUC's Rulemaking R.99-10-025 can be found at the CPUC's Web site at **www.cpuc.ca.gov/dg-r9910025/index.htm** . *From there, click on "Selected*

Decisions, Rulings in R.99-10-025" to view the October 21, 1999 Order Instituting Rulemaking, which establishes the roadmap for addressing DG issues in the CPUC and Energy Commission forums.

How can I be placed on the CPUC's service list?

Parties interested in being placed on the CPUC's Information Only service list should send a letter to the CPUC's Process Office at 505 Van Ness Avenue, San Francisco, CA 94102, asking that they be added to the R.99-10-025 service list. Parties on the Information Only service list will receive only those documents that originate from the CPUC, such as notices, rulings, and decisions.

If you would like to change your status from Information Only to Interested Party (which means that you plan to participate actively through sponsoring testimony, cross-examining witnesses, etc.), please contact CPUC Administrative Law Judge Michelle Cooke directly by phone at
(415) 703-2637.

How can I participate in the April 20 workshop?

As described in the workshop notice, you may submit written comments to the Energy Commission in advance of the workshop. Any comments received prior to April 18 will be made available to all workshop attendees.

You are also welcome to attend the workshop in person and participate either formally by providing oral comments during the scheduled time, or informally during the open discussion period.

The Energy Commission will likely broadcast the workshop over the Internet using RealAudio. Please see the Energy Commission's Web Site at **www.energy.ca.gov/RealAudio**.

Appendix C – Summary of April 20 Siting Committee Workshop

This appendix summarizes workshop comments. This includes oral presentations, docketed written comments, other written and oral comments received by Energy Commission staff, and public comments. Additionally, potential next steps discussed at the workshop are summarized. Transcripts of the workshop, along with most of the presenters' material, have been posted on the Energy Commission's Web Site at <www.energy.ca.gov/distgen/documents/index.html>. The views and conclusions provided in this section are those of the speaker.

Oral Presentations

Oral presenters included representatives from both the regulators and the regulated, as well as public members. These included government agency staff and management, an environmental advocacy organization, project development interests, a manufacturer of distributed generation technology, and a utility representative.

Judy Grau of Energy Commission staff gave an overview of distributed generation technologies, grouping them into three categories: fossil fuel-based, non-fossil fuel-based, and distributed storage technologies. She discussed commercial availability, size ranges, costs, emissions, typical fuels, and typical duty cycles.

Shirley Rivera of Resource Catalysts, an environmental consulting organization, gave an overview of project approval process issues. This included the types of environmental and siting considerations that are addressed by both planning and permitting agencies, which have different perspectives and responsibilities. However, a number of federal, state, local, city, and county agencies may be involved in both processes.

Ms. Rivera pointed out that what is defined as a project under CEQA may or may not be the same as what is defined as a project when dealing with air or water permits. Commissioner Laurie asked at what point the placement of a distributed generation facility creates the need for an independent CEQA examination; this was not resolved during the workshop.[1] However, Mr. Mohsen Nazemi of the South Coast Air Quality Management District noted discretionary decisions that a permitting agency is required to make, and subject to the CEQA process.

Ms. Rivera suggested that current permit process could be streamlined by identifying the technology-specific issues early and then developing policies and standards to resolve them that would allow distributed generation projects to be deployed with significantly less time and expense and with greater certainty.

Commissioner Pernell reiterated that the purpose of the workshop was not to streamline the CEQA regulations, but to examine ways to provide the information needed to streamline the

[1] Section IV of this report addresses Commissioner Laurie's question.

CEQA process as it relates to fulfilling the current regulations. He suggested the creation of a "best practices" list as it relates to licensing the various distributed generation technologies. ***Jeff Wilson*** of the California Air Resources Board (ARB) staff discussed integrating the deployment of distributed generation technologies into the air quality management planning process, based on the results of a study by Distributed Utility Associates (DUA), under contract to ARB. He noted that distributed generation would have an impact on the annual emissions inventory, depending on the number and type of units deployed. It would also change the population's exposure to harmful pollutants: of particular concern are diesel–fueled generators, due to the toxic nature of diesel particulate matter. In addition, there is concern that existing diesel generators permitted for emergency use only (or exempt from permits), with few emissions controls, might be expected to operate on high electricity use days when temperatures are usually high and air quality is poor. The results of the DUA study suggest that this concern may be valid. Of all of the potential distributed generation technologies considered to meet new peak load in the year 2002, diesels have the highest market potential based on economics, with the highest corresponding increase of emissions. The report should be available to the public in August 2000. Mr. Wilson noted that there are many caveats and limiting assumptions in the study, and that follow-up studies would be needed before drawing any firm conclusions.

Winston Potts of the ARB indicated that the agency is currently undergoing a regulatory needs assessment effort for diesel engines. This effort has been initiated to examine the need for air quality regulations on both existing stationary diesel engines, as well as finalizing the permitting guidelines for new stationary diesel engines. Mr. Potts anticipates regulatory action within the next two to three years.

Steven Greenberg of Intergy Power, a project developer, shared his experiences with, and lessons learned from, siting and permitting distributed generation, particularly with respect to the Pleasanton Power Park project located in the San Francisco Bay Area. He noted that the negative declaration[2] prepared by the City of Pleasanton assumed the use of distributed generation technologies. He indicated that the planning process was exceedingly slow due to the lack of codes and guidance for the local permitting agencies, requiring an educational effort on the part of the developer to resolve. He recommended the following: the creation of industry standards for specific technology groups; state and local standards; education programs for regulatory staff, utility staff, contractors, and customers; and an Energy Commission guidebook on distributed generation for building permit departments. Mr. Greenberg also envisioned the potential for the regulatory process to become obsolete because of the fast pace of change in technologies.

Kevin Duggan of Capstone Turbine, a manufacturer of microturbines, noted that their 30 kW microturbine product does not generally come under any regulatory or permitting requirements. Capstone strives to minimize customization and to meet various customer requirements by providing assurance in the form of UL certification. He noted that Capstone would like to know

[2] The type of environmental document prepared by a public agency when the proposed project has been determined to have no significant environmental impacts.

what standards are required in California (e.g., largest footprint that would not result in a land use issue, emissions limits, etc.). By specifying the requirements the product must satisfy, equipment manufacturers can design and build a product to meet those standards. These standards could then be used as screens, with those products passing the screens being exempt from a full permitting process.

David Reinhart of the Sacramento Municipal Utility District (SMUD) spoke about his experiences working with various planning and permitting agencies as part of SMUD's PV programs. They have developed a standardized permit submittal package that has eased the process for both the planning agencies and themselves. He stressed the importance of educating the appropriate local agencies when introducing new technologies and addressing issues of concern to them.

Chris Kinne of the California Environmental Protection Agency (Cal EPA) manages the state's 13 permit assistance centers, which were formed to reduce the complexity of the regulatory process for California businesses, particularly small businesses with fewer than 50 employees. She stressed the importance of project proponents being able to identify up front which agency contacts they need: the permit assistance centers can help identify the key contacts. Cal EPA has created an interactive web site called CalGold < www.calgold.ca.gov >. By typing in the project location and business type, a report is generated which notes all of the city, county, regional, state, and federal approvals which would be required. It also links with air districts' and other permitting agencies' web sites to the extent possible and seeks to provide applications on-line. She noted that there is currently no business type for distributed generation, but Cal EPA would consider working with the Energy Commission and/or CPUC as needed to update CalEPA's information.

Dr. Ken Lim of the Bay Area Air Quality Management District (BAAQMD) discussed both central plant and distributed generation related issues. Dr. Lim noted that his district has implemented a best available retrofit control technology (BARCT) rule for existing central station power plants. The limit decreases each year, with an ultimate system average limit of 15 ppm of NOx (a 90 percent reduction from baseline historical values). Thus, any comparison of distributed generation emissions to the existing system must take into account the system-average improvement occurring each year from reductions in emissions of existing central power plant sources.

Dr. Lim reiterated his district's concern that internal combustion engines pose a great cumulative potential air quality problem in the region. He noted that the district does permit diesel engines, subject to appropriate constraints.

Dr. Lim said that manufacturers would like to have uniform best available control technology (BACT) standards throughout California, which his district is pursuing. He noted the difficulty in setting one standard that is strict enough to generate support across all air districts while not being so stringent that it makes the project uneconomic. He also sees the need for alternative processes, in which an applicant could appeal to an air district in cases where there are overriding

considerations (e.g., if BACT requires natural gas, but it is not available in that location). Another consideration is to set an output-based standard, in terms of pounds of pollution per kilowatt-hour (or per megawatt-hour) of electricity generated, rather than pounds per hour.

Dr. Lim also identified equipment pre-certification as a potential streamlining mechanism. Pre-certification by the permit agency would accelerate the permit process. A technology could go through a generic CEQA review process and study, and any future units of the same type would only have to address site-specific local impacts. Dr. Lim noted that the key to equipment pre-certification is prior agreement on a uniform BACT standard by the air districts and ARB.

At present, however, initial studies, negative declarations, and/or environmental impact reports are often necessary for some new technologies for which emissions are not well-quantified, or for which there is a local impact, especially health impacts due to toxic emissions. Dr. Lim encouraged developers and applicants to hold pre-meetings with a district to review its rules and regulations, and to discuss the characteristics of the proposed technology.

Additional guidance can be found on the Bay Area AQMD Web Site <www.baaqmd.gov >, which posts technology-specific BACT and emission offset requirements. Where there is no prior BACT determination, there is a BACT workbook, which provides a methodology for developing the appropriate BACT level. In addition, the district helps small businesses (defined as emitting fewer than 50 tons per year of criteria pollutants) find emission offsets, where needed, to satisfy regulatory requirements.

The district also has an accelerated permit process for facilities that do not have significant toxic emissions and emit fewer than 10 pounds of criteria pollutants per day. The Bay Area AQMD Web Site includes a list of toxic compounds and the emissions levels that trigger regulatory requirements. He noted that they have had a great deal of success with this accelerated permit process program.

Mr. Greenberg inquired about the possibility of the district implementing a measure in which new emissions credits could be generated by energy efficiency or no-emissions technologies such as solar photovoltaics. Dr. Lim replied that before an emission reduction credit can be granted, the district must demonstrate that the reduction is real, quantifiable, and permanent.
Mr. Greenberg suggested to the Energy Commission that the state pursue the idea of bringing all of the air districts together under one umbrella and allowing that sort of emission reduction credit to occur.

Elaborating further on the status of the district's pre-certification program, Dr. Lim noted that their board has approved such a program, but have not had any inquiries about it yet. For distributed generation technologies that could be treated essentially as appliances, pre-certification could be done at the manufacturer level for specific models.

Sheryl Carter of the Natural Resources Defense Council, an environmental advocacy organization, stressed the importance of disseminating information and of interagency cooperation in an effort to facilitate deployment of appropriate distributed generation technologies. She noted that distributed generation cannot uniformly be considered clean, as the technologies range from zero-emission photovoltaics to internal combustion engines and combustion turbines that emit criteria pollutants and possibly toxic emissions. As such, a categorical exemption from CEQA for all distributed generation technologies is inappropriate.

Ms. Carter presented a table which compared the ranges of costs, thermal efficiency, and the uncontrolled[3] emissions of various distributed generation technologies and fuels expected to be available by 2003 with those of a new central-station combined cycle facility with appropriate controls. She encourages the use of measures to reduce those emissions, such as catalysts or post-combustion controls, use of waste heat, and routine maintenance.

She recommended that the Energy Commission and/or the ARB, possibly with assistance from CADER, initiate a collaborative effort among industry, agencies, environmental groups, and consumers to address the technical and policy issues regarding performance standards, testing, and labeling requirements. She also recommended that the Energy Commission could extend its building code responsibility to cover the energy use of distributed generation, and develop building codes to encourage cogeneration (also known as combined heat and power) applications. The Energy Commission could also provide local agencies with guidance and expertise via guidance documents or other means. The appropriate air agencies need to develop technical standards.

Docketed Written Comments

Written comments were received from five entities: Monterey Bay Unified Air Pollution Control District (Monterey Bay UAPCD); San Joaquin Valley Unified Air Pollution Control District (San Joaquin Valley UAPCD); Bay Area Air Quality Management District (Bay Area AQMD); San Luis Obispo Air Pollution Control District (San Luis Obispo APCD); and Solar Development Cooperative (SDC).

Monterey Bay UAPCD, San Joaquin Valley UAPCD and Bay Area AQMD expressed the concern that existing emergency generators may be the first distributed generation to proliferate, because they are already in place and could require little modification to increase their usage from emergency backup to baseload or peak load operation. These units are either not currently permitted, or have permits for limited operation that do not require BACT or emission offsets. In particular, the designation of diesel particulate matter as a toxic air contaminant is an additional concern which must be addressed before such units could be considered to operate other than under emergency conditions. Monterey Bay UAPCD does not believe that diesel-fired

[3] Distributed generation emissions are typically uncontrolled because of the current lack of regulations for generators of the sizes presented.

distributed generation is a candidate for a categorical exemption from CEQA. He noted that a program EIR, prepared in cooperation with air districts, would be helpful in addressing deployment issues specific to distributed generation technologies.

Bay Area AQMD's comments echoed Monterey Bay UAPCD's concerns about the potential proliferation of diesel-fueled distributed generation and the potential for significant adverse health effects. However, Bay Area AQMD also noted that distributed generation technologies such as solar and fuel cells could benefit air quality, because they are zero or low emissions.

San Luis Obispo APCD expressed concern about the lack of time given to respond to the Energy Commission workshop scoping questions and considered the lack of time to be inappropriate given the importance of the workshop issues. It suggested that an additional workshop be scheduled, with at least 30 days' notice to allow for proper response. It also echoed the concern expressed by the other air districts regarding the potential proliferation of diesel-fueled and other fossil fuel-based distributed generators that could cause significant health risks (in the case of diesel) and degrade air quality, particularly because distributed generators would be located close to population centers and have near-surface release points (due to lower stack heights compared to central-station facilities). As a result, San Luis Obispo APCD does not believe it is appropriate to use existing streamlined CEQA and permit processes for fossil fuel-based technologies, although it sees merit in evaluating the use of streamlining options for renewable energy technologies.

Solar Development Cooperative (SDC) agreed with San Luis Obispo APCD that small renewable energy systems are the best candidates for using streamlined CEQA processes, while fossil fuel-based systems are inappropriate for such consideration. In addition, distributed storage systems that do not involve moving parts or hazardous materials should be considered for expedited permitting. Because distributed generation is sited close to population centers, it is important to address air quality and public health issues, as well as the potential for noise, adverse aesthetics, environmental justice, and community safety.

SDC noted that while there is substantial information available about the environmental impacts of distributed generation technologies, it is not sufficiently organized, considered, and integrated into deployment decisions. SDC suggests that all government agencies should have a standard manual that contains information pertinent to each agency. This should increase teamwork and efficiency as agencies will be aware of overlapping responsibilities and can coordinate accordingly.

SDC believes the government should provide technology information booklets to fire departments and emergency personnel that include step-by-step guidance to respond to emergencies. Local building officials need to understand the environmental impacts of distributed generation technologies on the natural environment, and design issues including roof load-bearing, aesthetics, noise pollution, and visual blight.

SDC sees value in using a working group process to address CEQA and permit streamlining, as long as the groups are not dominated by fossil fuel proponents and the working groups seek objectivity in compiling and analyzing referenced data. In addition, consumer input should be sought throughout the process. The Energy Commission should include parties representing small businesses and should encourage financial support for small businesses to participate effectively in the workshops. Local government officials, professionals in architecture, urban planning and non-energy-related industries need to be included as either consultants to, or as participants in, the working group process.

Other Written and Oral Comments Received by Energy Commission Staff

Eric Wong of Caterpillar Inc., an engine manufacturer, submitted comments to Energy Commission staff, Judy Grau, via email on April 19, 2000. As part of the next steps, he suggested that staff consider using a private/public group to assist with this effort or to provide outside counsel. Such a group should be charged with specific tasks, rather than simply be an advisory group.

On April 17, 2000, Energy Commission staff Mignon Marks spoke with Ms. Pat Eklund, councilmember for the City of Novato and former chair of the League of California Cities' Environmental Quality Policy Committee. Ms. Eklund's suggestions for the types of support local governments could use include the following: (1) provide model permits, with conditions of approval; (2) recommend the type of environmental document needed; and (3) provide technical assistance to local governments, such as on-site evaluation during the permitting process. She also had several suggestions for how to reach local governments, including the following: (1) Get on the agendas of League of California Cities' division meetings, and county-level mayor and councilmember department meetings (in particular, attend the Executive Conference of the League's Mayors and Councilmembers' Department, set for July); (2) Post model permits and other information on the Energy Commission's Web Site; and (3) Offer on-site technical assistance in building permit streamlining.

Public Comments

Four members of the public contributed comments at the workshop.

Eric Wong of Caterpillar thanked the Energy Commission, CPUC, ARB and air districts for pursuing permit streamlining for distributed generation. He cited four reasons to continue the effort: (1) streamlining should enable manufacturers to avoid the costs of tailoring their products to meet different codes and standards throughout the state; (2) project developers can avoid the costs of attending hearings or preparing testimony supporting an individual distributed generation project; (3) communities can avoid environmental and public health and safety impacts associated with distributed generation projects (Eric encouraged the Energy Commission, CPUC and ARB to coordinate handling environmental justice issues.); and (4) regulators can develop better public policies.

He raised new concerns about air pollution offset availability and cost; the potential that offset owners can exert market power; and the cumulative air quality impacts from many distributed generation projects aggregating in an area over time. Lastly, he reiterated the need for pre-certification programs and uniform standards, and suggested the Energy Commission monitor the City of Irvine's effort to streamline its permitting process for distributed generation/combined heat and power (i.e., cogeneration) projects[4] and contribute research and development (R&D) funding to a U.S. Department of Energy initiative to lower emissions from advanced reciprocating engines.

As a follow-up to Commission Laurie's question about the need for CEQA review, ***Jerry Steele*** of the Monterey Bay Unified Air Pollution Control District stated that his district's legal counsel and planning supervisor have determined that all operating permits issued by the district are discretionary and, therefore, distributed generation projects, which require air permits (i.e., whose emissions exceed defined levels of significance) will require CEQA review. Other air districts may interpret CEQA's requirements differently. He expressed his district's concern regarding health risks from converting existing diesel generators now reserved for emergency use to longer operation as distributed generation units.

Mohsen Nazemi, Assistant Deputy Executive Officer of the South Coast Air Quality Management District (South Coast AQMD), summarized his district's efforts over the past decade to address air pollution from utility boilers and to advance cleaner technologies, such as fuel cells. He emphasized his district's concern regarding the cancer-causing effects of diesel emissions and described new regulatory actions recently taken by the district to further limit public exposure to diesel emissions, including from heavy-duty diesel fleets. Mr. Nazemi said the district may not permit diesel generators for emergency use in the future. Distributed generation units fueled with natural gas may be cleaner than diesel generators, but if many small distributed generation units are installed in the South Coast Air Basin, the units could emit more pollution than one, large natural gas fired power plant producing the same amount of electricity.

South Coast AQMD has already implemented a number of permit streamlining actions on its own. These actions include an engine pre-certification program, which exempts certified engines from air permitting and CEQA review.

South Coast AQMD does not support a categorical exemption for all distributed generation, but supports the idea of preparing a programmatic EIR.

Eileen Smith of SDC advocated greater use of zero-emission technologies for generating electricity. She expressed concern that their commercialization was being suppressed by oil cartels. In addition, she disagreed with characterizing diesel generators as the lowest-cost

[4] The Energy Commission is already co-funding this project with the U.S. Department of Energy.

technology. A "global view" would assess diesel generators' costs to public health, the environment and the quality of life.

She also expressed concern that "permit streamlining" efforts which do not recognize technology-specific characteristics could lead to high-polluting generators being pushed through a local permitting process. Furthermore, if any distributed generation systems are found to have been installed without first having the required permits, she felt they should be disconnected, not just fined.

Discussion of Next Steps

Judy Grau summarized key points from the presentations and public comments. A frequent comment from workshop participants was that not all distributed generation technologies should receive equal regulatory treatment. Renewable energy and fuel cells were identified as preferred technologies by many workshop attendees, because they have no or low emissions. In contrast, all who spoke on the topic felt that diesel generators deserve significantly greater regulatory scrutiny if owners seek to increase their use or deploy new units.

The distributed generation industry speakers favored inter-government and industry efforts to adopt standards and codes, which would apply in multiple jurisdictions, so that manufacturers can avoid building custom equipment and, if possible, can pre-certify their equipment with air districts.

Favored actions by state government included providing guidance documents and a program or master EIR. Commissioner Laurie asked staff to contact local jurisdictions, (whose absence at the workshop was noted) and ask them what kind of large-scale, generic environmental analysis should be undertaken if the State of California were to pursue preparing a program or master EIR for them. He extended the workshop proceedings by two weeks (to May 5) to receive additional written comments on this and other relevant issues.

Judy Grau said the next steps would be to prepare a plan of action, which includes conducting more outreach to local jurisdictions. The purpose of this outreach would be to identify the needs of local jurisdictions and then prepare and distribute information to them.